



BUNDLING THE FEE FOR COLLECTION
AND HANDLING OF BLOOD SPECIMENS
WITH THE OFFICE VISIT PAYMENT RATE

Final Report

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1.0 INTRODUCTION

1.1 Statement of the Problem

The new Medicare fee schedule explicitly includes practice overhead costs in its calculation of payment rates for each physician service. However, one frequently billed service (collection and handling of blood specimens) may in many cases be seen as overhead associated with an office visit or with in-office laboratory tests. If so, separate payment for this service may be unwarranted under the fee schedule. This report analyzes the distribution of claims and allowed charges for the collection and handling of blood specimens by carrier and by physician specialty, and examines various alternatives for bundling this service with office visits, consults, and in-office blood tests.

For ambulatory patients, laboratory tests on blood specimens may be performed in a variety of settings, including hospital outpatient departments and independent laboratories. However, it is frequently more convenient for patients to have blood specimens drawn in the physician's office, perhaps before or after seeing the doctor. The blood specimen is usually drawn by a procedure referred to as routine venipuncture. The specimen may be used for blood tests performed in the physician's office, or it may be sent out to an independent laboratory or a hospital for tests; in the latter case, the physician is providing a service referred to as "handling" of blood specimens. Both routine venipuncture and handling may be referred to under the rubric "collection and handling of blood specimens."

The physician is allowed to charge a fee (up to \$3) for drawing the blood specimen, regardless of whether the tests are performed in the office or elsewhere; that is, claims for collection and handling of blood specimens may be reimbursed at up to \$3 each. Under many circumstances, such services may be regarded as office overhead, and the \$3 payment may be seen as duplicate payments under the Medicare fee schedule, in which reimbursement rates are formulated to include overhead costs. Total Medicare allowed charges for collection and handling of such specimens in the physician's office amounted to \$72.6 million in 1989; this amount represents potential cost savings to Medicare if payments for collection and handling of blood specimens are bundled with other office-based services.

1.2 Executive Summary

1.2.1 Study Methods

Physician claims were obtained from a 1 percent national sample of Medicare beneficiaries (BMAD Beneficiary File) for 1989. Our analytic file included:

- all claims for collection and handling of blood specimens (CPT code 36415, and HCPCS codes P9007, P9600, and P9605) billed from the physician's office;
- all claims for office visits and office consults; and
- office-based blood tests which matched the collection/handling claims by date of service and beneficiary and provider identifiers.

We specifically excluded other services (such as ambulatory surgical procedures) from the analysis since they were so infrequently associated with office-based claims for collection and handling of blood specimens.

All claims for a single beneficiary-provider-date of service combination were combined in an "episode of care" record. Each episode might contain a visit, a consult, a collection/handling claim, or some combination of the three. In addition, any episode might contain one or more claims for blood tests performed in the physician's office. (Blood tests were distinguished using a list of procedure codes developed by the project director, Dr. Boutwell.)

The distribution of claims and allowed charges collection and handling of blood specimens was analyzed along several dimensions:

- by procedure code;
- by location;
- by carrier;
- by urban and rural areas within carrier;
- by physician specialty;
- in association with same-day visits and consults;
- in association with same-day office-based blood tests.

1.2.2 Results

Distribution by Procedure Code and Location

There were 332,362 claims for collection and handling of blood specimens in 1989. Two-thirds (68.9 percent) of these were from physicians' offices; another 25.1 percent were from independent laboratories. Nearly all (94.4 percent) of office-based collection/handling claims (216,299 out of 229,074) were billed using the code for "routine venipuncture for collection of specimens" (CPT 36415), while only 3 of these claims used the HCPCS code (P9007) for "handling charge for purchased lab services."

Association with Office Visits and Consults

Overall, 12.2 percent of office visits and consults had associated claims (matched by date of service and beneficiary and provider identifiers) for collection and handling of blood specimens. Conversely, only 70 percent of office-based claims for blood specimen collection and handling had associated claims for office visits or consults; 30 percent of collection/handling claims were not associated with visits or consults. The probability of having a blood specimen drawn varied considerably by level of office visit/consult, and was higher for established versus new patients and for more complex physician contacts.

Variation by Carrier

Claims for collection and handling of blood specimens were found for all carriers except Virginia. For all carriers except Washington (state), procedure code 36415 (routine venipuncture) was used for the vast majority of collection/handling claims. In Washington, however, all claims carried the code (P9605) indicating "routine venipuncture for collection of specimens, single homebound, nursing home, or SNF patient." All carriers except rural Minnesota adhered fairly well to the \$3 limit on reimbursement for collection/handling services. In rural Minnesota, however, the mean allowed charge for such claims was \$19.34. For nearly all carriers, the distribution of collection/handling claims across urban/rural areas roughly paralleled that of visit/consult claims; that is, beneficiaries in rural areas did not seem to have a disproportionate level of claims for such services.

We found that more than half (59.5 percent) of all claims for collection and handling of blood specimens were associated with in-office blood tests. This association was found for all carriers.

Variation by Specialty

Two specialties (internal medicine and family practice) account for almost half of total allowed charges for office visits and consults. These same two specialties account for two-thirds of total charges for blood specimen collection and handling. However, Medicare payments for collection/handling represent only about 3 percent of payments for visits and consults for these two specialties, a figure that is more in line with that for other specialties, and for all physicians in general (2.0 percent).

Implications for Bundling

Four alternatives are outlined for bundling collection and handling of blood specimens with other office-based services. The scheme with the smallest impact on Medicare outlays (a potential reduction of \$40.9 million in 1989) would be to bundle blood specimen collection and handling charges with blood tests performed in the physician's office; that is, to consider routine venipuncture to be part of the overhead of performing blood tests. A second alternative would be to bundle collection/handling reimbursement with office visits and consults; this would result in an estimated annual reduction in Medicare outlays of \$48.7 million. Bundling collection and handling with both blood tests and office visits/consults would result in annual savings of \$60.8 million, while simply denying reimbursement for all collection and handling of blood specimens (regardless of association with other services) would result in annual savings of \$72.6 million.

Such savings are small compared to overall Medicare spending for physician services, and may not be worth the opposition and ill will engendered by disallowing reimbursement for this minor ambulatory procedure which is concentrated in a few specialties. However, the problem of how to reimburse physicians for high-volume, low-price services remains an important one for providers and payors of health care services.

2.0 METHODS

2.1 Study Period and Data Sources

Physician claims for this study were obtained from a 1 percent national sample of Medicare beneficiaries (BMAD files) for calendar year 1989. A 1 percent (rather than 5 percent) sample was used to reduce an otherwise unwieldy number of claims in the analytic file. In creating the 1 percent BMAD file, ESRD beneficiaries were also resampled to 1 percent.

Part of our analysis required assignment of physician claims to urban or rural areas. Medicare physician claims contain a carrier-designated "reasonable charge locality", which in most states can be used as a rough indicator of urban/rural status. However, some states use a single reasonable charge locality for the entire state. We therefore decided to base our urban/rural designations on the beneficiary's place of residence. We used the beneficiary's HICNO to obtain state and county of residence from the 1989 Denominator File, and then cross-walked the state and county codes to metropolitan statistical area (MSA) data,* which told us whether the place of residence was classified as urban or rural. This process resulted in a satisfactory level of matching (less than 1 percent non-matches) for all carriers except four: the District of Columbia (where 12.1 percent of beneficiaries were unmatched), Maryland (28.1 percent), and Missouri (11.4 percent), and Virginia (51.9 percent).

This analysis also used a special file containing CPT procedure codes for laboratory tests which are usually or always performed on blood specimens. This file was developed for this project by Dr. Boutwell and was useful in determining the percent of office-based claims for collection and handling of blood specimens which are associated with in-office blood tests. The file is contained in this report as Appendix A.

*Using the "SSA and FIPS State and County Crosswalk" file developed by HCFA.

2.2 Sample Selection

When used in the office setting, two procedure codes are used to indicate collection and handling of blood specimens. These are:

P9007 (HCPCS) Handling charge for purchased lab services (blood only);
and

36415 (CPT) Routine venipuncture for collection of specimen(s)

The HCPCS coding system at one time contained a code (P9600) equivalent to CPT 36415. Although it has been deleted from the coding manual, it seemed possible that some providers continue to use this code. HCPCS also contains a code (P9605) for venipuncture performed on home bound, nursing home, and SNF patients. It seemed possible that the latter code might occasionally be used erroneously when specimens were drawn in office settings. We decided to include claims with both of these codes in our sample. The two codes are:

P9600 (HCPCS) Routine venipuncture for collection of specimens *[deleted code]*; and

P9605 (HCPCS) Routine venipuncture for collection of specimens, single home bound, nursing home, or SNF patient.

All claims with these four procedure codes and location of service = 1 (office) were included in our sample.

Since the purpose of this research was to explore the effects of packaging blood specimen collection and handling charges with physician office visits, we needed to include all claims for office visits (CPT procedure codes 90000 to 90080) in our sample. Since, in the office setting, physician consultations are nearly indistinguishable in content from visits, we also included all consultations (procedure codes 90600 to 90654) with location of service = 1 (office) in the sample.

2.3 File Construction

2.3.1 Identification of Claims for Visits, Consults, and Collection and Handling of Blood Specimens

We first abstracted from the 1 percent 1989 BMAD file all claims that met one of the following criteria:

- office visit (procedure code 90000-90080 and location = 1);*
- office-based consult (procedure code 90600-90654 and location of service = 1); or
- blood specimen collection and handling billed from office location (procedure code = P9007, P9600, P9605, or 36415; location of service = 1).

These abstracted claims were placed into two separate files, one containing visits and consults, and the other containing specimen collection and handling claims. These two files were then merged by HICNO, date of service, and provider ID to form beneficiary-, date-, and provider-specific "episodes of care". Each episode of care contained all visits, consults, and blood specimen collection and handling claims for a single beneficiary-date-provider combination.

We anticipated initially that nearly all collection/handling services would be provided in the context of a visit or consult. Preliminary analysis of this merged file, however, showed that only 70 percent of claims for office-based collection/handling were associated with visits or consults; 30 percent of these claims did not have matching claims for physician contacts (visits or consults) with the same date of service and provider ID. For packaging purposes, it was important to determine whether these "unmatched" collection/handling claims were in fact associated with other office-based physician services, such as minor surgical procedures or endoscopies; conceivably, one might want to bundle collection/handling charges with some specific physician services other than visits and consults, if the association were frequent.

*There are specific procedure codes which distinguish office visits from other physician visits. We found, however, that some 19,000 (1.5 percent) of the 1.3 million office visits in our file (determined by procedure code alone) were coded with a non-office location of service (usually out-patient department). These "non-office" office visits were excluded from our file.

To address this concern, we re-abstracted the 1 percent BMAD file to obtain all office-based physician claims (not just visits and consults) which matched claims for office-based blood specimen collection and handling by HICNO, date of service, and provider ID. We then analyzed the frequency of procedure codes within this broader range of physician services. These frequencies are shown in Table 2-1.

Using as a denominator all physician claims which matched claims for blood collection and handling by provider ID and date of service, we found that one quarter of these matching claims were for office visits, while only 0.3 percent were for office-based physician consultations. Nearly 10 percent were for other ancillary services, including cardiovascular tests and procedures and diagnostic radiology. Ambulatory surgical procedures (including all forms of endoscopy) accounted for only 1 percent of these matching claims.

Unexpectedly, nearly half of these matching physician claims were for laboratory tests performed on blood specimens by the same provider on the same day. The location of service shown on all of these claims for laboratory tests was the physician's office, rather than (for example) an independent laboratory.

To summarize, we first identified all office-based claims for office visits, consults, and blood specimen collection and handling, and then obtained all other office-based claims which matched the collection/handling claims by date of service and beneficiary and provider identifiers. We found that nearly 85 percent (Table 2-1) of these matching claims were for office visits, office consults, or blood tests performed in the physician's office. An additional 10 percent were for other ancillary services, while only 1 percent were for ambulatory surgical procedures. Given this distribution, it seemed that the most appropriate alternatives for packaging blood collection and handling charges would involve office-based visits, consults, and laboratory tests. We therefore included only the following types of claims in our final analytic file:

- office-based visits;
- office-based consults;
- office-based claims for collection and handling of blood specimens;

- claims for laboratory tests on blood specimens, performed in the physician's office.

Before presenting the results of our analysis, two further observations must be made. In this report, we use the term "claims" interchangeably with "number of services" for the sake of convenience; in both cases, the quantity referred to is the number of units of service for a given procedure code or group of codes, indicated in Medicare data by the "MTUS" (miles-time-units) field. Second, in cleaning our data we dropped Medicare beneficiaries who did not reside in the 50 states or the District of Columbia, or whose HICNO indicated that they were covered by the Railroad Retirement Act (RRA). In developing tables by carrier, however, we discovered that we nevertheless had a handful of services in the file for beneficiaries covered by the carriers for Puerto Rico and for the RRA. Because of the very small numbers, these data were dropped from tables arranged by carrier, and account for a small discrepancy between totals of services and charges by carrier versus those by physician specialty.

3.0 RESULTS

3.1 Distribution of Claims for Collection and Handling of Blood Specimens, by Procedure Code and Location of Service

In Section 2.2, we listed four different procedure codes which might be used to bill for collection and handling of blood specimens in the physician's office. These are:

- 36415 (CPT) Routine venipuncture for collection of specimen(s)
- P9007 (HCPCS) Handling charge for purchased lab services (blood only);
- P9600 (HCPCS) Routine venipuncture for collection of specimens [deleted code];
- P9605 (HCPCS) Routine venipuncture for collection of specimens, single home bound, nursing home, or SNF patient.

P9007 is intended to be used when blood is drawn in the physician's office and sent to an outside laboratory. The CPT code 36415 is used for routine venipuncture (drawing of blood), but does not imply that the blood has been sent to an outside laboratory. (It seems clear, however, 36415 is used frequently even when the blood specimen is sent to an outside laboratory.) P9605 indicates routine venipuncture in a patient who is homebound or in a nursing home or skilled nursing facility, while P9600 is an old, deleted HCPCS code equivalent to 36415 (venipuncture).

Table 3-1 shows the distribution of claims for collection and handling of blood specimens by procedure code and location of service. Near the bottom of the table, it can be seen that over 90 percent of such claims were billed using the code for routine venipuncture (36415). Nearly 4 percent of these 1989 claims were billed using P9600, a code that was deleted from HCPCS in November 1985. Six percent of blood collection and handling claims were billed using a procedure code (P9600) intended for patients in non-office locations (home, nursing home, or SNF). Interestingly, only 17 of the nearly 327,000 claims for blood collection and handling were billed using P9007, the procedure code intended to reimburse physicians for drawing blood and sending it to an outside laboratory. (When only claims from the physician's office are considered, the figures are 3 out of 229,074 claims.)

Although our final analytic file contains only those blood collection/handling claims coded with the physician's office as the location of service, we thought it would be of interest to determine how such claims are distributed across all locations of service. The rightmost column of Table 3-1 shows the distribution of blood collection and handling claims by location of service. Most of these services were provided in the physician's office (68.9 percent) or in independent laboratories (25.1 percent). Another 5 percent were provided in extended care facilities (2.1 percent) or nursing homes (2.6 percent). One-third (6,033 of 19,710) claims for homebound, nursing home, or SNF patients (P9605) were billed from the physician's office; however, nearly all of these claims were from a single carrier (see Section 3.3.1 below).

The remainder of this chapter deals only with the approximately 229,000 collection and handling claims billed with the physician's office as the location of service.

3.2 Collection and Handling of Blood Specimens, by Level of Visit or Consult

Overall, 12.2 percent of office visits and consults had associated claims (matched by date of service and beneficiary and provider identifiers) for collection and handling of blood specimens.* The probability of having a blood specimen drawn varied considerably by level of office visit (Table 3-2). Established patients were far more likely than new patients to have blood drawn; within each of these types, more complex visits were more likely to involve collection of blood specimens. Thus, 13.3 percent of comprehensive new-patient visits had associated collection/handling claims, versus only 3.5 percent for brief new-patient visits; 26.7 percent of comprehensive established-patient visits had associated collection/handling claims, versus 14.8 percent for minimal and 7.7 percent for brief established-patient visits. A similar pattern was observed for office-based consults.

*Conversely, only 70 percent of office-based claims for blood specimen collection and handling had associated claims for office visits or consults; 30 percent of collection/handling claims were not associated with visits or consults.

We aggregated the allowed charges for visits and consults by procedure code, and for collection/handling claims by procedure code of the associated visit or consult claim, and determined the ratio of associated charges for collection/handling to charges for visits and consults. These results are also presented in Table 3-2. Across all visit and consult codes, allowed charges for collection and handling of blood specimens amounted to 1.3 percent of allowed charges for visits and consults. Again, this varied considerably by procedure code, with a lower ratio for new patients and a higher ratio for established patients.

From another perspective, however, reimbursement for collection and handling of blood specimens appears more consequential. The rightmost column of Table 3-2 shows the mean allowed charge for collection/handling claims divided by the mean allowed charge for the indicated visit/consult procedure code. Thus, when collection/handling is performed in conjunction with a brief, new patient office visit, the \$3 fee for collection/handling is 12.0 percent of the reimbursement for the visit itself; when done in conjunction with minimal visits for established patients, the \$3 fee represents 26.9 percent of the reimbursement for the visit.

3.3 Collection and Handling of Blood Specimens, By Carrier

3.3.1 Use of Procedure Codes by Carrier

We first looked at the distribution of claims for blood collection and handling by procedure code and carrier (Table 3-3). We found such claims for all carriers except those in Rhode Island and Virginia. No beneficiaries from Rhode Island were included in the 1989 BMAD Beneficiary File. However, Virginia beneficiaries were represented in the file by office visits and consults, but not by claims for blood specimen collection/handling. We are unaware of local codes or special carrier policies in Virginia which might explain their absence.

In all carriers except one (Washington state), procedure code 36415 (routine venipuncture) was used for the majority of collection/handling claims. In Washington, there were no claims for 36415; rather, all blood collection/handling claims for this carrier used the HCPCS procedure code P9605, "routine venipuncture for collection of specimens, single home bound, nursing home, or SNF patient."

3.3.2 Allowed Charges by Carrier

A long-standing policy included in the Medicare Carriers Manual limits reimbursement for blood specimen collection and handling to \$3:

Separate charges made by physicians, independent laboratories, or hospital laboratories for drawing or collecting specimens should be allowed up to \$3 whether or not the specimens are referred to physicians or other laboratories for testing. [Medicare Carriers Manual, Section 5114.1.D]

We found that most carriers followed this restriction fairly well (Table 3-3). For all carriers except one, the mean allowed charge per collection/handling claim was approximately \$3, ranging from \$1.96 in Michigan to \$3.13 in Arkansas. In rural Minnesota, however, the mean allowed charge per unit of service for collection/handling of blood specimens was \$19.34. We examined claims for this carrier to rule out data errors as a cause of this anomaly. All but 5 of the more than 3,000 collection/handling claims for this carrier used code 36415, "routine venipuncture." Although there were a handful of "outlier" claims with allowed charges over \$1,000, the distribution of all claims showed that this carrier did not adhere to the \$3 limit. The 25th percentile of allowed charges for routine venipuncture in rural Minnesota was \$6.27, while the 50th percentile was \$13.50.

3.3.3 Distribution of Charges by Urban/Rural Areas within Carriers

We next examined whether claims and charges for collection and handling of blood specimens differed by urban/rural settings within carriers. It was conceivable, for example, that beneficiaries in urban settings would be more likely to go to an independent laboratory or to a hospital outpatient department for blood tests, while beneficiaries in rural settings would

be more likely to have blood drawn in the physician's office, with tests performed either in the office or in an independent laboratory. Table 3-4 shows the distribution of blood collection/handling charges by urban/rural areas with carriers. Virtually all claims in two carriers (Queens and New Jersey) were designated by our method as "urban". For two other carriers (Idaho, and North and South Dakota), more than 80 percent of claims were designated as "rural". For comparison, Table 3-5 shows the distribution of visits and consults by urban/rural areas within carriers; this distribution appears similar to that for collection/handling charges. Table 3-6 combines data from the two previous tables and shows that, for most carriers, the ratio of allowed charges for blood collection/handling to allowed charges for visits and consults was similar for urban and rural areas. For all carriers but one, this ratio was 5 percent or less. Rural Minnesota was an exception, for reasons noted previously.

3.3.4 Blood Collection and Handling Associated with In-Office Blood Tests, By Carrier

As discussed earlier (Section 2.3.1), we re-abstracted our original data source (1 percent 1989 BMAD Beneficiary File) to obtain all physician claims which matched blood specimen collection/handling claims by date of service and beneficiary and provider identifiers. We found that 46.0 percent of such matching claims were for laboratory tests performed on blood tests, as determined by CPT procedure code. (Appendix A contains a list of laboratory tests which are usually or always performed on blood specimens; we used this list to distinguish blood tests in our analytic file.) Since we had not expected these results, we decided to see whether the practice of reimbursing for venipuncture associated with in-office blood tests was a universal policy among carriers. Table 3-7 shows that it was. The proportion of blood collection/handling charges associated with in-office blood tests (as a percent of all collection/handling charges) ranged from 32.9 percent in rural Minnesota to 83.9 percent in North and South Dakota, with a mean for all carriers of 59.5 percent.

There appears to be no policy in the Medicare Carriers Manual that prohibits billing for routine venipuncture when the provider also performs laboratory tests on the resulting blood

specimen; in fact, Section 5114.1.D of the manual (quoted above in Section 3.3.2) appears to authorize the practice, by specifying that "separate charges...for drawing or collecting specimens should be allowed...*whether or not the specimens are referred to physicians or other laboratories for testing*" [emphasis added].

Table 3-8 shows, by carrier, the estimated number of claims and total allowed charges for specimen collection and handling associated with in-office blood tests, and the distribution of such charges between urban and rural areas within each carrier.

3.4 Blood Collection and Handling, By Physician Specialty

3.4.1 Distribution of All Collection/Handling Claims, by Specialty

Two specialties account for almost half (Table 3-9) of total allowed charges for office-based visits and consults under Medicare: internal medicine (32.6 percent) and family practice (13.0 percent). These same two specialties account for two-thirds of total charges for blood specimen collection and handling: 46.1 percent for internal medicine, and 19.9 percent for family practice. Reimbursement for collection and handling of blood specimens amounts to 2.8 percent of reimbursement for visits and consults for internists, 3.0 percent for family practitioners, and 3.5 percent for physicians in multi-specialty group practices. For several other specialties (e.g., ear, nose & throat; dermatology; ophthalmology; orthopedic surgery; podiatry), reimbursement for collection and handling of blood specimens represents a negligible fraction (0.1 percent or less) of reimbursement for office visits and consults. Table 3-9 includes all claims for collection and handling of blood specimens, and shows the total allowed charges (\$72.6 million) for all claims for collection and handling of blood specimens in the physician's office.

3.4.2 Distribution of Collection/Handling Claims Associated with Office Visits and Consults by Specialty

Table 3-10 again shows all office visits and consults by specialty, but shows only those collection/handling claims that were associated with visits or consults (matching by date of service, and provider and beneficiary identifiers). Under these circumstances, total reimbursement for collection and handling of blood specimens is reduced to \$48.7 million. However, the distribution of this amount by specialty is roughly similar to that seen in Table 3-9: 2.0 percent for internal medicine, 2.0 percent for family practice, 1.5 percent for general practice, and 1.8 percent for multi-specialty groups. The percent of collection/handling claims associated with visits and consults varies considerably across specialties, ranging from 26.8 percent for ophthalmologists to 78.3 percent for pulmonary specialists (Table 3-11).

3.4.3 Distribution of Collection/Handling Claims Associated with In-Office Laboratory Tests, By Specialty

Dermatologists appeared least likely to perform blood tests in the office after drawing a blood specimen: collection/handling charges associated with in-office blood tests represented only 9.7 percent of all charges for collection/handling (Table 3-12). Surprisingly, orthopedic surgeons appeared most likely to follow blood drawing with an in-office blood test: 70.2 percent of their collection/handling charges were associated with in-office tests.

If viewed from the perspective of total allowed charges across all specialties, however, the results are less surprising. Of the estimated \$72.6 million in Medicare outlays for collection/handling of blood specimens in 1989, \$40.9 million were associated with in-office blood tests. Of the latter amount, 51.5 percent was for internal medicine, 17.9 percent for family practice, and 8.4 percent for general practice.

3.5 Implications for Bundling Blood Collection and Handling Charges with Other Physicians Services

In constructing our analytic file, we identified all claims for collection and handling of blood specimens in the physician's office, and then obtained all other office-based claims

which matched collection and handling claims by date of service and provider and beneficiary identifiers. Given the distribution of these matching claims (Table 2-1), it appeared that the most suitable schemes for bundling collection/handling claims would involve some combination of visits, consults, and in-office blood tests.

The bundling scheme with the smallest impact on Medicare outlays would be to bundle blood specimen collection and handling charges with blood tests performed in the physician's office (Table 3-13); that is, to consider the minor procedure of routine venipuncture to be part of a "bundle" defined by the blood test, and to therefore deny separate reimbursement for drawing blood when a physician also performs an in-office blood test on the same day. The impact of this bundling method can be assessed from Table 3-6. An estimated 13.4 million claims for collection and handling of blood specimens in 1989 were associated with same-day, same-provider office-based blood tests. Total allowed charges for these claims were \$40.9 million. This amount represents the potential cost savings to Medicare by implementing this bundling scheme. Such a change in reimbursement policy has greatest impact on two specialties, with 51.5 percent of the total decrease in reimbursement borne by internists, and another 17.9 percent by family practitioners. However, the reduction in reimbursement is roughly proportional to total reimbursement for collection/handling by specialty. Across all specialties, collection/handling charges associated with blood tests represent 56.4 percent of all collection/handling charges; that is, 56.4 percent of 1989 Medicare outlays for collection/handling charges would have been avoided under this bundling scheme. For internists, this figure is 62.9 percent; for family practitioners, 50.7 percent; for multi-specialty group practices, 53.2 percent.

A second possible bundling scheme would be to bundle payment for collection and handling of blood specimens when associated with office visits and consults. Table 3-10 allows estimation of the impact of this alternative. An estimated 129.7 million office visits and consults were reimbursed under Medicare in 1989, with total allowed charges of \$3.7 billion. There were an estimated 16.2 million claims for collection and handling of blood specimens associated with these office visits and consults, with total allowed charges of \$48.7 million. If HCFA were to bundle collection/handling claims with office visits and consults, this latter

amount could simply be redistributed across all office visits and consults, resulting in an average increase of 37.5 cents (\$0.375) per visit or consult. Or, rather than increase the mean reimbursement of office visits and consults by this small amount, HCFA might simply retain the entire cost savings of \$48.7 million.

Yet a third alternative bundling policy would include aspects of the first two: deny collection/handling claims associated with in-office blood tests (as above), and deny other collection/handling claims if they are associated with office visits or consults. This policy would result in total cost savings of \$60.8 million: \$40.9 million from the first bundling component, and \$19.9 million from denying additional collection/handling claims associated with office visits and consults.

In terms of ease of implementation at the carrier level, the most desirable reimbursement policies for collection and handling of blood specimens would be to pay all of the claims, or to pay none of them. For example, it is possible for a carrier to use its claims history files to determine if a collection/handling claim matches an office visit or consult by date of service and beneficiary and provider identifiers, and then to deny reimbursement for the collection/handling claim if a match is found. However, given the high volume of claims for office visits, consults, and collection and handling of blood specimens, such processing would be relatively expensive, especially compared to the average amount (\$3) of the claims being reviewed for possible denial. If, as an alternative to the bundling schemes described above, HCFA were to deny reimbursement for all claims for collection and handling of blood specimens in the physician's office, the potential savings would be in the order of \$72.6 million per year, based on 1989 claims data (Table 3-9). In addition, there may be some cost savings at the carrier level from the elimination of tens of millions of claims annually from their claims processing systems.

However, these savings are relatively small compared to overall spending on physicians' services under Medicare; by itself, a change in HCFA policy to eliminate Medicare reimbursement for collection and handling of blood specimens would have a barely noticeable impact on the Medicare budget. The small cost savings need to be balanced against the opposition and ill will likely to be generated by this policy among physicians, especially

among primary care providers such as internists and family practitioners, who will bear the brunt of the spending reduction. It may be that the limited cost savings from policy changes in this area are not worth the controversy that may ensue, especially in view of other recent changes in Medicare reimbursement policies which have affected these specialties.

Furthermore, although it is unlikely that primary care physicians will stop doing routine venipuncture in the office, policy makers should hesitate before instituting any policy which might discourage the provision of simple, routine, and necessary blood tests in office settings and shift these procedures to hospital outpatient departments and independent laboratories; such a shift will be inconvenient for patients and physicians.

However, payment for collection and handling of blood specimens does raise some important policy questions for HCFA regarding appropriate methods of reimbursing for high volume services with a low mean price per unit of service. This category includes not only specimen collection and handling but also many office-based blood tests. For such procedures, the burden of claims processing (for both physician and carrier) is relatively high compared to the dollar value of the service. Yet elimination of reimbursement for such procedures is likely to have a disproportionate adverse effect on a few specialties. Bundling approaches which increase reimbursement for some procedures (such as visits and consults) while eliminating payment for others (such as collection and handling of blood specimens) are likely to meet resistance because reimbursement increases are likely to be small and will not fully compensate specialties with greatest losses from disallowed procedures. In short, it will be difficult to find solutions to these reimbursement problems which are acceptable to payors, providers, and claims processors.

TABLES

TABLE 2-1

DISTRIBUTION OF PHYSICIAN CLAIMS ASSOCIATED WITH OFFICE-BASED COLLECTION AND HANDLING
OF BLOOD SPECIMENS

	<u>PERCENT OF CLAIMS</u>
<u>Office visits</u>	<u>26.2</u> %
<u>Consultations (office only)</u>	<u>0.3</u>
<u>Laboratory tests from blood specimens</u>	<u>46.0</u>
Hematology (from blood specimen)	20.2 %
Chemistry and toxicology (from blood specimen)	16.2
Miscellaneous laboratory tests (from blood specimen)	8.8
Immunology (from blood specimen)	0.8
<u>Laboratory tests from other or unspecified material</u>	<u>12.2</u>
Urinalysis	7.7
Chemistry and toxicology (other or unspecified specimen)	3.3
Microbiology (any specimen)	0.9
Pathology (any specimen)	0.3
<u>Other Diagnostic Tests and Services</u>	<u>9.8</u>
Cardiovascular tests and procedures	5.6
Diagnostic X-ray	3.4
Pulmonary tests	0.7
Diagnostic ultrasound	0.1
<u>Ambulatory surgical procedures</u>	<u>1.0</u>
<u>Ophthalmology services</u>	<u>0.0</u>
<u>Other</u>	<u>4.5</u>
<u>TOTAL</u>	<u>100.0</u>

Source: 1989 1 % BMAD Beneficiary File

TABLE 3-1
DISTRIBUTION OF CLAIMS FOR COLLECTION AND HANDLING OF BLOOD SPECIMENS,
BY LOCATION OF SERVICE AND PROCEDURE CODE (a)

<u>Location</u>	<u>P9007</u>	<u>P9600</u>	<u>P9605</u>	<u>36415</u>	<u>Total for All Codes</u>	<u>Distribution by Location</u>
Office	3	6,739	6,033	216,299	229,074	68.9%
Home	0	48	2,197	1,006	3,251	1.0%
Inpatient	0	0	13	130	143	0.0%
ECF/Nursing Home	0	743	3,661	2,699	7,103	2.1%
Outpatient	0	16	5	99	120	0.0%
Independent Lab	14	5,180	4,771	73,535	83,500	25.1%
Dialysis Center	0	0	0	0	0	0.0%
ASF	0	0	0	3	3	0.0%
Hospice	0	0	0	1	1	0.0%
Nursing Home	0	0	3,020	5,734	8,754	2.6%
Other	0	1	10	402	413	0.1%
Total for All Locations	17	12,727	19,710	299,908		
Distribution by Code	0.0%	3.8%	5.9%	90.2%		
Total, All Locations and Codes						332,362

(a) Data shown are actual claims and charges from 1 % BMAD Beneficiary File,
rather than estimates for 100 percent of beneficiaries

Source: 1989 1 % BMAD Beneficiary File

TABLE 3-2
DISTRIBUTION OF OFFICE VISITS AND CONSULTS, AND ASSOCIATED CLAIMS FOR COLLECTION AND HANDLING OF BLOOD SPECIMENS,
BY VISIT / CONSULT PROCEDURE CODE

	Total No. of Visits & Consults(a)	Total Allowed Charges for Visits & Consults(a)	No. of Assoc. Claims for Collection/ Handling of Blood Specimens(a)	Allowed Charges for Collection/ Handling Claims(a)	Pct. of Visits & Consults with Assoc. Collection/ Handling Claims	Collection/ Handling/ Charges as Pct of Charges for for Visits & Consults	Allowed Charge per Collection/ Handling Claim per Visit or Consult
OFFICE VISITS							
90300 New patient, brief	544,600	\$13,705,383	18,700	\$56,542	3.5%	0.4%	12.0%
90010 limited	1,613,800	\$50,913,272	75,100	\$228,774	4.6%	0.4%	9.7%
90015 intermediate	2,548,800	\$95,938,096	151,500	\$455,262	5.9%	0.5%	8.0%
90017 extended	974,900	\$42,383,763	91,100	\$309,961	9.3%	0.7%	7.8%
90020 comprehensive	3,135,300	\$196,431,358	438,800	\$1,266,880	13.3%	0.6%	4.6%
90030 Established patient, minimal	2,284,200	\$28,067,881	339,800	\$1,122,789	14.8%	4.0%	26.9%
90040 brief	11,629,700	\$215,604,306	904,100	\$3,267,397	7.7%	1.5%	19.5%
90050 limited	44,903,700	\$988,200,350	5,169,800	\$16,273,136	11.5%	1.6%	14.3%
90060 intermediate	45,666,800	\$1,261,027,727	6,351,800	\$18,122,348	13.1%	1.4%	10.3%
90070 extended	9,282,700	\$337,478,275	1,412,300	\$4,275,791	15.2%	1.3%	8.3%
90080 comprehensive	4,205,700	\$225,912,111	1,126,700	\$3,446,868	26.7%	1.5%	5.7%
CONSULTS (IN PHYSICIAN'S OFFICE)							
90600 initial consultation, brief	341,300	\$16,279,959	13,200	\$45,239	3.8%	0.3%	7.2%
90605 intermediate	342,600	\$20,359,924	16,700	\$62,388	4.2%	0.3%	6.3%
90610 extended	409,000	\$29,221,349	24,800	\$74,724	6.0%	0.3%	4.2%
90620 comprehensive	1,334,400	\$129,849,214	100,500	\$302,370	7.5%	0.2%	3.1%
90630 complex	328,300	\$43,276,460	32,700	\$98,112	9.9%	0.2%	2.3%
90640 Follow-up consultation, brief	27,900	\$652,458	1,000	\$3,000	3.6%	0.5%	12.8%
90641 limited	60,900	\$1,936,825	5,300	\$24,560	8.5%	1.3%	14.6%
90642 intermediate	92,000	\$4,067,170	4,900	\$18,670	5.2%	0.5%	8.6%
90643 complex	47,500	\$2,708,590	2,700	\$8,052	5.7%	0.3%	5.2%
90650 Confirmatory consultation, brief	10,100	\$504,830	0	\$0	0.0%	0.0%	0.0%
90651 intermediate	8,400	\$464,667	0	\$0	0.0%	0.0%	0.0%
90652 extended	5,600	\$371,266	100	\$300	1.8%	0.1%	4.5%
90653 comprehensive	14,600	\$1,249,747	500	\$1,440	3.4%	0.1%	3.4%
90654 complex	4,600	\$507,851	500	\$1,500	8.7%	0.3%	2.7%
	129,797,400	\$3,707,142,852	16,282,600	\$49,466,103	12.2%	1.3%	10.6%

(a) Estimated by multiplying claims data from 1 % BMAD Beneficiary File by 100

Source: 1989 1 % BMAD Beneficiary File

TABLE 3-3

FREQUENCY, TOTAL REIMBURSEMENT, AND MEAN REIMBURSEMENT FOR COLLECTION AND HANDLING OF BLOOD SPECIMENS, BY PROCEDURE CODE AND CARRIER

CARRIER			P9007	P9600	P9605	36415	All Codes
00510	Alabama	Frequency	0	0	0	4,334	4,334
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$12,952.74	\$12,952.74
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.98	\$2.99
01020	Alaska	Frequency	0	0	0	63	63
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$189.00	\$189.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00
01030	Arizona	Frequency	0	0	0	4,182	4,182
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$12,522.97	\$12,522.97
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$2.99
00520	Arkansas	Frequency	0	0	12	2,603	2,615
		Sum Allowed	\$0.00	\$0.00	\$45.00	\$8,136.00	\$8,181.00
		Mean Allowed	\$0.00	\$0.00	\$3.75	\$3.12	\$3.13
00542	California (northern)	Frequency	0	6,737	4	0	6,741
		Sum Allowed	\$0.00	\$20,084.09	\$12.00	\$0.00	\$20,096.09
		Mean Allowed	\$0.00	\$2.98	\$3.00	\$0.00	\$2.98
02050	California (southern)	Frequency	0	0	0	11,683	11,683
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$35,071.00	\$35,071.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00
00550	Colorado	Frequency	1	0	0	2,224	2,225
		Sum Allowed	\$3.16	\$0.00	\$0.00	\$6,698.00	\$6,701.16
		Mean Allowed	\$3.16	\$0.00	\$0.00	\$3.01	\$3.01
10230	Connecticut	Frequency	0	0	0	2,223	2,223
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$6,674.00	\$6,674.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00
00570	Delaware	Frequency	0	0	0	232	232
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$696.00	\$696.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00
00580	District of Columbia	Frequency	0	0	0	2,773	2,773
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$8,313.00	\$8,313.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
00590	Florida	Frequency	0	0	2	24,876	24,878
		Sum Allowed	\$0.00	\$0.00	\$6.00	\$74,644.84	\$74,650.84
		Mean Allowed	\$0.00	\$0.00	\$3.00	\$3.00	\$3.00
01040	Georgia	Frequency	0	2	1	4,971	4,974
		Sum Allowed	\$0.00	\$9.00	\$5.00	\$14,913.60	\$14,927.60
		Mean Allowed	\$0.00	\$4.50	\$5.00	\$3.00	\$3.00
01120	Hawaii	Frequency	0	0	0	218	218
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$653.88	\$653.88
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00

05130	Idaho	Frequency	0	0	0	1,020	1,020
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$3,057.29	\$3,057.29
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
00621	Illinois	Frequency	0	0	6	8,793	8,799
		Sum Allowed	\$0.00	\$0.00	\$18.00	\$26,424.94	\$26,442.94
		Mean Allowed	\$0.00	\$0.00	\$3.00	\$3.00	\$3.01
00630	Indiana	Frequency	0	0	12	4,204	4,216
		Sum Allowed	\$0.00	\$0.00	\$36.00	\$12,610.39	\$12,646.39
		Mean Allowed	\$0.00	\$0.00	\$3.00	\$2.99	\$3.00
00640	Iowa	Frequency	0	0	0	4,260	4,260
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$12,794.58	\$12,794.58
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00
00650	Kansas	Frequency	0	0	6	2,884	2,890
		Sum Allowed	\$0.00	\$0.00	\$18.00	\$8,647.78	\$8,665.78
		Mean Allowed	\$0.00	\$0.00	\$3.00	\$2.99	\$3.00
00740	Kansas City	Frequency	0	0	1	1,771	1,772
		Sum Allowed	\$0.00	\$0.00	\$3.00	\$5,306.68	\$5,309.68
		Mean Allowed	\$0.00	\$0.00	\$3.00	\$2.99	\$3.00
00660	Kentucky	Frequency	0	0	0	2,979	2,979
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$8,936.94	\$8,936.94
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
00528	Louisiana	Frequency	0	0	43	3,585	3,628
		Sum Allowed	\$0.00	\$0.00	\$207.00	\$10,981.38	\$11,188.38
		Mean Allowed	\$0.00	\$0.00	\$4.81	\$3.06	\$3.08
21200	Maine	Frequency	0	0	0	1,100	1,100
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$3,299.60	\$3,299.60
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
00690	Maryland	Frequency	0	0	0	1,884	1,884
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$5,659.00	\$5,659.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00
00700	Massachusetts	Frequency	0	0	0	4,381	4,381
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$13,193.00	\$13,193.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.01	\$3.01
00710	Michigan	Frequency	0	0	0	12,953	12,953
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$25,439.80	\$25,439.80
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$1.96	\$1.96
00720	Minnesota (rural)	Frequency	0	0	5	3,138	3,143
		Sum Allowed	\$0.00	\$0.00	\$72.00	\$60,703.97	\$60,775.97
		Mean Allowed	\$0.00	\$0.00	\$14.40	\$19.34	\$19.34
10240	Minnesota	Frequency	0	0	5	1,926	1,931
		Sum Allowed	\$0.00	\$0.00	\$15.00	\$5,775.32	\$5,790.32
		Mean Allowed	\$0.00	\$0.00	\$3.00	\$2.99	\$3.00
10250	Mississippi	Frequency	0	0	3	3,074	3,077
		Sum Allowed	\$0.00	\$0.00	\$9.36	\$9,224.06	\$9,233.42
		Mean Allowed	\$0.00	\$0.00	\$3.12	\$3.00	\$3.00

11260	Missouri (excluding Kansas City)	Frequency	0	0	0	4,178	4,178
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$12,513.44	\$12,513.44
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
00751	Montana	Frequency	0	0	0	692	692
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$2,076.00	\$2,076.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00
00655	Nebraska	Frequency	0	0	11	2,337	2,348
		Sum Allowed	\$0.00	\$0.00	\$33.00	\$7,021.74	\$7,054.74
		Mean Allowed	\$0.00	\$0.00	\$3.00	\$3.00	\$3.00
01290	Nevada	Frequency	0	0	0	594	594
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$1,781.50	\$1,781.50
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
00780	New Hampshire	Frequency	0	0	0	1,069	1,069
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$3,209.00	\$3,209.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00
00860	New Jersey	Frequency	0	0	0	7,830	7,830
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$23,462.71	\$23,462.71
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
01360	New Mexico	Frequency	0	0	0	582	582
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$1,740.92	\$1,740.92
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$2.99
00803	New York (NYC area)	Frequency	0	0	0	9,596	9,596
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$28,784.63	\$28,784.63
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
14330	New York (Queens)	Frequency	0	0	0	1,279	1,279
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$3,853.22	\$3,853.22
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.01	\$3.01
00801	New York (upstate)	Frequency	0	0	0	3,116	3,116
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$9,303.89	\$9,303.89
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.98	\$2.99
00820	North & South Dakota	Frequency	0	0	1	1,954	1,955
		Sum Allowed	\$0.00	\$0.00	\$3.12	\$5,854.21	\$5,857.33
		Mean Allowed	\$0.00	\$0.00	\$3.12	\$2.99	\$3.00
05535	North Carolina	Frequency	0	0	0	7,357	7,357
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$22,059.94	\$22,059.94
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
16360	Ohio	Frequency	0	0	0	9,662	9,662
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$28,966.69	\$28,966.69
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
01370	Oklahoma	Frequency	2	0	3	3,569	3,574
		Sum Allowed	\$8.65	\$0.00	\$13.00	\$10,702.21	\$10,723.86
		Mean Allowed	\$4.32	\$0.00	\$4.33	\$2.99	\$3.00
01380	Oregon	Frequency	0	0	0	2,866	2,866
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$8,594.14	\$8,594.14
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00

00865	Pennsylvania	Frequency	0	0	0	11,135	11,135
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$33,402.65	\$33,402.65
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
00880	South Carolina	Frequency	0	0	6	2,981	2,987
		Sum Allowed	\$0.00	\$0.00	\$16.80	\$8,940.08	\$8,956.88
		Mean Allowed	\$0.00	\$0.00	\$2.80	\$2.99	\$3.00
05440	Tennessee	Frequency	0	0	0	5,451	5,451
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$16,350.00	\$16,350.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$3.00
00900	Texas	Frequency	0	0	206	12,859	13,065
		Sum Allowed	\$0.00	\$0.00	\$618.00	\$38,605.57	\$39,223.57
		Mean Allowed	\$0.00	\$0.00	\$3.00	\$3.00	\$3.00
00910	Utah	Frequency	0	0	0	902	902
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$2,708.28	\$2,708.28
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00
00930	Washington	Frequency	0	0	5,706	0	5,706
		Sum Allowed	\$0.00	\$0.00	\$17,211.95	\$0.00	\$17,211.95
		Mean Allowed	\$0.00	\$0.00	\$3.01	\$0.00	\$3.02
16510	West Virginia	Frequency	0	0	0	1,931	1,931
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$5,778.70	\$5,778.70
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$2.99	\$2.99
00951	Wisconsin	Frequency	0	0	0	5,856	5,856
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$17,750.67	\$17,750.67
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.03	\$3.03
05530	Wyoming	Frequency	0	0	0	163	163
		Sum Allowed	\$0.00	\$0.00	\$0.00	\$489.00	\$489.00
		Mean Allowed	\$0.00	\$0.00	\$0.00	\$3.00	\$3.00

* Table shows actual data from 1 % BMAD Beneficiary File, rather than estimated data for 100 percent of beneficiaries

Source: 1989 1% BMAD Beneficiary File

TABLE 3-4
COLLECTION AND HANDLING OF BLOOD SPECIMENS, BY URBAN/RURAL AREAS WITHIN CARRIER

Carrier	Estimated No. of Claims ^a	Estimated Allowed Charges ^a	Percent Urban (Charges)	Percent Rural (Charges)	Percent Unknown (Charges)	Mean Allowed Charges
Alabama	433,400	\$1,295,274	63.9%	36.0%	0.1%	\$2.99
Alaska	6,300	\$18,900	25.4%	74.6%	0.0%	\$3.00
Arizona	418,200	\$1,252,297	78.8%	21.1%	0.1%	\$2.99
Arkansas	261,500	\$818,100	30.3%	69.7%	0.0%	\$3.13
California (northern)	674,100	\$2,009,809	89.0%	11.0%	0.0%	\$2.98
California (southern)	1,168,300	\$3,507,100	96.7%	3.0%	0.3%	\$3.00
Colorado	222,500	\$670,116	82.0%	18.0%	0.0%	\$3.01
Connecticut	222,300	\$667,400	94.6%	5.4%	0.0%	\$3.00
Delaware	23,200	\$69,600	61.2%	38.8%	0.0%	\$3.00
District of Columbia	277,300	\$831,300	84.6%	1.5%	13.9%	\$3.00
Florida	2,487,800	\$7,465,084	92.1%	7.8%	0.1%	\$3.00
Georgia	497,400	\$1,492,760	58.8%	41.2%	0.0%	\$3.00
Hawaii	21,800	\$65,388	78.4%	21.6%	0.0%	\$3.00
Idaho	102,000	\$305,729	18.3%	81.5%	0.3%	\$3.00
Illinois	879,900	\$2,844,294	79.7%	20.3%	0.0%	\$3.01
Indiana	421,600	\$1,264,639	65.3%	34.7%	0.0%	\$3.00
Iowa	426,000	\$1,279,458	33.9%	65.9%	0.1%	\$3.00
Kansas	289,000	\$866,578	31.7%	68.3%	0.0%	\$3.00
Kansas City	177,200	\$530,968	80.4%	19.6%	0.0%	\$3.00
Kentucky	297,900	\$893,694	50.7%	49.2%	0.1%	\$3.00
Louisiana	362,800	\$1,118,838	66.1%	33.8%	0.0%	\$3.08
Maine	110,000	\$329,960	69.4%	30.6%	0.0%	\$3.00
Maryland	188,400	\$565,900	64.4%	11.8%	23.8%	\$3.00
Massachusetts	438,100	\$1,319,300	90.5%	9.4%	0.0%	\$3.01
Michigan	1,295,300	\$2,543,980	82.3%	17.7%	0.0%	\$1.96
Minnesota (rural)	314,300	\$6,077,597	24.3%	75.7%	0.0%	\$19.34
Minnesota (Minneapolis)	193,100	\$579,032	75.0%	25.0%	0.0%	\$3.00
Mississippi	307,700	\$923,342	21.5%	78.5%	0.0%	\$3.00
Missouri	417,800	\$1,251,344	49.0%	42.0%	8.9%	\$3.00
Montana	69,200	\$207,600	34.0%	65.9%	0.1%	\$3.00
Nebraska	234,800	\$705,474	33.3%	66.7%	0.0%	\$3.00
Nevada	59,400	\$178,150	90.4%	7.1%	2.5%	\$3.00
New Hampshire/Vermont	106,900	\$320,900	46.0%	53.9%	0.1%	\$3.00
New Jersey	783,000	\$2,346,271	99.7%	0.2%	0.0%	\$3.00
New Mexico	58,200	\$174,092	41.2%	58.6%	2.2%	\$2.99
New York (NYC area)	959,600	\$2,878,463	96.4%	3.6%	0.0%	\$3.00
New York (Queens)	127,900	\$385,322	99.9%	0.0%	0.1%	\$3.00
New York (upstate)	311,600	\$930,389	78.4%	21.5%	0.1%	\$2.99
North and South Dakota	195,500	\$585,733	19.0%	80.9%	0.1%	\$3.00
North Carolina	735,700	\$2,205,994	48.8%	51.0%	0.2%	\$3.00
Ohio	966,200	\$2,896,669	82.5%	17.5%	0.0%	\$3.00
Oklahoma	357,400	\$1,072,386	42.2%	57.5%	0.3%	\$3.00
Oregon	286,600	\$859,414	64.5%	35.5%	0.0%	\$3.00
Pennsylvania	1,113,500	\$3,340,265	89.0%	11.0%	0.0%	\$3.00
South Carolina	298,700	\$895,688	59.6%	40.0%	0.4%	\$3.00
Tennessee	545,100	\$1,635,000	63.9%	35.5%	0.6%	\$3.00
Texas	1,306,500	\$3,922,357	67.3%	32.6%	0.1%	\$3.00
Utah	90,200	\$270,828	71.4%	28.6%	0.0%	\$3.00
Washington (state)	570,600	\$1,721,195	76.7%	23.1%	0.1%	\$3.02
West Virginia	193,100	\$577,870	35.7%	64.0%	0.3%	\$2.99
Wisconsin	585,600	\$1,775,067	63.2%	36.7%	0.1%	\$3.03
Wyoming	16,300	\$48,900	33.7%	66.3%	0.0%	\$3.00
Totals	22,906,800	\$72,591,608	69.5%	29.9%	0.6%	\$3.17

(a) Estimates are derived by multiplying claims data from 1% BMAD Beneficiary File by 100.

Source: 1989 1% BMAD Beneficiary File

TABLE 3-5
DISTRIBUTION OF VISITS AND CONSULTS, BY URBAN/RURAL AREAS WITHIN CARRIER

Carrier	Total Claims for Visits and Consults (a)	Total Allowed Charges for Visits and Consults (a)	Percent of Charges in Urban Areas	Percent of Charges in Rural Areas	Percent of Charges in Unknown Areas
Alabama	2,399,700	\$59,667,524	64.4%	35.5%	0.0%
Alaska	85,700	\$3,399,204	40.8%	59.2%	0.0%
Arizona	2,061,400	\$70,146,838	76.7%	22.9%	0.4%
Arkansas	1,600,800	\$31,336,234	30.8%	69.1%	0.1%
California (northern)	6,884,200	\$237,283,710	90.8%	9.0%	0.1%
California (southern)	7,855,200	\$335,931,238	96.6%	3.3%	0.2%
Colorado	1,130,100	\$27,411,796	75.4%	24.5%	0.1%
Connecticut	1,711,800	\$61,939,219	96.8%	3.2%	0.0%
Delaware	317,500	\$8,401,923	92.3%	35.2%	0.2%
District of Columbia	1,259,900	\$47,765,323	86.3%	1.7%	12.1%
Florida	10,808,500	\$380,195,084	92.3%	7.5%	0.2%
Georgia	2,830,100	\$68,579,878	59.0%	41.0%	0.0%
Hawaii	496,200	\$15,885,466	73.4%	26.5%	0.1%
Idaho	487,200	\$10,549,012	17.1%	82.5%	0.4%
Idaho	1,483,800	\$40,776,110	58.8%	41.1%	0.1%
Illinois	4,878,900	\$123,394,076	81.1%	18.9%	0.0%
Indiana	2,663,100	\$61,702,447	69.2%	30.8%	0.0%
Iowa	1,704,400	\$33,638,764	38.4%	61.4%	0.2%
Kansas	1,274,700	\$27,205,621	35.0%	65.0%	0.0%
Kansas City	1,023,100	\$24,120,367	79.5%	20.5%	0.0%
Kentucky	1,974,000	\$45,079,501	44.6%	55.3%	0.0%
Louisiana	2,009,800	\$45,708,114	67.8%	32.2%	0.0%
Maine	685,600	\$17,463,208	56.2%	43.8%	0.0%
Maryland	1,472,500	\$46,106,952	59.0%	12.0%	28.1%
Massachusetts	3,204,700	\$114,565,167	91.6%	8.3%	0.1%
Michigan	5,162,300	\$135,378,766	85.5%	14.4%	0.1%
Minnesota (rural)	997,800	\$23,199,880	21.7%	78.3%	0.0%
Minnesota (Minneapolis)	632,500	\$19,735,787	72.1%	27.9%	0.0%
Mississippi	1,402,900	\$24,925,318	23.2%	76.8%	0.0%
Missouri	2,111,700	\$46,997,579	49.8%	38.8%	11.4%
Montana	360,400	\$8,203,170	27.9%	72.0%	0.1%
Nebraska	786,900	\$15,716,779	40.2%	59.8%	0.0%
Nevada	491,200	\$18,376,651	85.5%	10.7%	3.8%
New Hampshire/Vermont	827,300	\$18,988,794	51.0%	48.9%	0.1%
New Jersey	3,968,200	\$118,242,917	99.7%	0.2%	0.1%
New Mexico	575,200	\$15,255,736	46.4%	52.7%	0.8%
New York (NYC area)	5,828,600	\$218,746,422	97.9%	2.0%	0.0%
New York (Queens)	842,100	\$29,866,059	99.8%	0.2%	0.1%
New York (upstate)	3,124,700	\$87,438,393	77.7%	22.2%	0.0%
North and South Dakota	794,200	\$16,242,011	23.2%	76.7%	0.1%
North Carolina	3,294,800	\$99,971,089	51.1%	48.5%	0.4%
Ohio	5,923,200	\$150,613,969	82.7%	17.2%	0.0%
Oklahoma	1,672,400	\$38,036,074	55.3%	44.6%	0.1%
Pennsylvania	8,795,700	\$244,431,244	88.9%	11.0%	0.0%
South Carolina	1,545,100	\$30,168,248	58.0%	41.9%	0.1%
Tennessee	2,622,600	\$58,461,928	60.2%	39.2%	0.8%
Texas	6,764,800	\$165,042,970	72.2%	27.7%	0.1%
Utah	532,200	\$11,450,803	73.2%	26.8%	0.0%
Virginia	2,348,500	\$55,262,439	19.5%	28.6%	51.9%
Washington (state)	2,435,800	\$68,953,435	76.4%	23.5%	0.1%
West Virginia	1,003,200	\$26,261,473	42.5%	57.3%	0.3%
Wisconsin	2,481,900	\$59,040,497	68.6%	31.3%	0.1%
Wyoming	583,300	\$3,204,225	34.4%	65.2%	0.4%
Total	130,212,400	\$3,706,525,432	78.4%	20.1%	1.6%

(a) Estimated by multiplying claims data from 1 % BMAD Beneficiary File by 100

Source: 1989 1 % BMAD Beneficiary File.

TABLE 3-6

DISTRIBUTION OF VISITS, CONSULTS, AND COLLECTION/HANDLING CLAIMS BY URBAN/RURAL AREAS WITHIN CARRIER

<u>Carrier</u>	<u>Total Claims for Visits and Consults (a)</u>	<u>Total Allowed Charges for Visits and Consults (a)</u>	<u>Estimated No. of Claims(a) for Collection/ Handling</u>	<u>Estimated Allowed Charges(a) for Collection/ Handling</u>	<u>Ratio of Coll/Hand to Visit, Consult Charges (Urban)</u>	<u>Ratio of Coll/Hand to Visit, Consult Charges (Rural)</u>	<u>Ratio of Coll/Hand to Visit, Consult Charges (Overall)</u>
Alabama	2,399,700	\$59,667,524	433,400	\$1,295,274	2.2%	2.2%	2.2%
Alaska	85,700	\$3,399,204	6,300	\$18,900	0.3%	0.7%	0.6%
Arizona	2,061,400	\$70,146,838	418,200	\$1,252,297	1.8%	1.6%	1.8%
Arkansas	1,600,800	\$31,336,234	261,500	\$818,100	2.6%	2.6%	2.6%
California (northern)	6,884,200	\$237,283,710	674,100	\$2,009,609	0.8%	1.0%	0.8%
California (southern)	7,855,200	\$335,931,238	1,168,300	\$3,507,100	1.0%	1.0%	1.0%
Colorado	1,130,100	\$27,411,796	222,500	\$670,116	2.7%	1.8%	2.4%
Connecticut	1,711,800	\$61,939,219	222,300	\$667,400	1.1%	1.8%	1.1%
Delaware	317,500	\$8,401,923	23,200	\$69,600	0.8%	0.9%	0.8%
District of Columbia	1,259,900	\$47,765,323	277,300	\$831,300	1.7%	1.6%	1.7%
Florida	10,808,500	\$380,195,084	2,487,800	\$7,465,084	2.0%	2.0%	2.0%
Georgia	2,830,100	\$68,579,878	497,400	\$1,492,760	2.2%	2.2%	2.2%
Hawaii	496,200	\$15,885,466	21,800	\$65,388	0.4%	0.3%	0.4%
Idaho	487,200	\$10,549,012	102,000	\$305,729	3.1%	2.9%	2.9%
Illinois	4,878,900	\$123,394,076	879,900	\$2,644,294	2.1%	2.3%	2.1%
Indiana	2,663,100	\$61,702,447	421,600	\$1,264,639	1.9%	2.3%	2.0%
Iowa	1,704,400	\$33,638,764	426,000	\$1,279,458	3.4%	4.1%	3.8%
Kansas	1,274,700	\$27,205,621	289,000	\$866,578	2.9%	3.3%	3.2%
Kansas City	1,023,100	\$24,120,367	177,200	\$530,968	2.2%	2.1%	2.2%
Kentucky	1,974,000	\$45,079,501	297,900	\$893,694	2.3%	1.8%	2.0%
Louisiana	2,009,800	\$45,708,114	362,800	\$1,118,838	2.4%	2.6%	2.4%
Maine	685,600	\$17,493,208	110,000	\$329,960	2.3%	1.3%	1.9%
Maryland	1,472,500	\$46,106,952	188,400	\$565,900	1.3%	1.2%	1.2%
Massachusetts	3,204,700	\$114,565,167	438,100	\$1,319,300	1.1%	1.3%	1.2%
Michigan	5,162,300	\$135,378,766	1,295,300	\$2,543,980	1.8%	2.3%	1.9%
Minnesota (rural)	997,800	\$23,199,880	314,300	\$6,077,597	29.3%	25.3%	26.2%
Minnesota (Minneapolis)	632,500	\$19,735,787	193,100	\$579,032	3.0%	2.6%	2.9%
Mississippi	1,402,900	\$24,925,318	307,700	\$923,342	3.4%	3.8%	3.7%
Missouri	2,111,700	\$46,997,579	417,800	\$1,251,344	2.6%	2.9%	2.7%
Montana	360,400	\$8,203,170	69,200	\$207,600	3.1%	2.3%	2.5%
Nebraska	786,900	\$15,716,779	234,800	\$705,474	3.7%	5.0%	4.5%
Nevada	491,200	\$18,376,651	59,400	\$178,150	1.0%	0.6%	1.0%
New Hampshire/Vermont	827,300	\$18,988,794	106,900	\$320,900	1.5%	1.9%	1.7%

New Jersey	3,968,200	\$118,242,917	783,000	\$2,346,271	2.0%	2.3%	2.0%
New Mexico	575,200	\$15,255,736	58,200	\$174,092	1.0%	1.2%	1.1%
New York (NYC area)	5,828,600	\$218,746,422	959,600	\$2,878,463	1.3%	2.3%	1.3%
New York (Queens)	842,100	\$29,866,059	127,900	\$385,322	1.3%	0.0%	1.3%
New York (upstate)	3,124,700	\$87,438,393	311,600	\$930,389	1.1%	1.0%	1.1%
North and South Dakota	794,200	\$16,242,011	195,500	\$585,733	3.0%	3.8%	3.6%
North Carolina	3,294,800	\$69,971,089	735,700	\$2,205,994	3.0%	3.3%	3.2%
Ohio	5,923,200	\$150,613,969	966,200	\$2,896,669	1.9%	2.0%	1.9%
Oklahoma	1,672,400	\$38,036,074	357,400	\$1,072,386	2.2%	3.6%	2.8%
Oregon	1,483,800	\$40,776,110	286,600	\$859,414	2.3%	1.8%	2.1%
Pennsylvania	8,795,700	\$244,431,244	1,113,500	\$3,340,265	1.4%	1.4%	1.4%
South Carolina	1,545,100	\$30,198,248	298,700	\$895,688	3.0%	2.8%	3.0%
Tennessee	2,622,600	\$58,461,928	545,100	\$1,635,000	3.0%	2.5%	2.8%
Texas	6,764,800	\$155,042,970	1,306,500	\$3,922,357	2.4%	3.0%	2.5%
Utah	532,200	\$11,450,803	90,200	\$270,828	2.3%	2.5%	2.4%
Virginia	2,348,500	\$55,262,439	0	\$0	0.0%	0.0%	0.0%
Washington (state)	2,435,800	\$68,953,435	570,600	\$1,721,195	2.5%	2.5%	2.5%
West Virginia	1,003,200	\$26,261,473	193,100	\$577,870	1.9%	2.5%	2.2%
Wisconsin	2,481,900	\$59,040,497	585,600	\$1,775,067	2.8%	3.5%	3.0%
Wyoming	583,300	\$3,204,225	16,300	\$48,900	1.5%	1.6%	1.5%
Total	130,212,400	\$3,706,525,432	22,906,800	\$72,591,608	1.7%	2.9%	2.0%

(a) Estimated by multiplying claims data from 1 % BMAD Beneficiary File by 100

Source: 1989 1 % BMAD Beneficiary File.

TABLE 3-7

SPECIMEN COLLECTION AND HANDLING CHARGES ASSOCIATED WITH IN-OFFICE BLOOD TESTS, BY URBAN/RURAL AREAS WITHIN CARRIER

Carrier	Estimated Number of Claims(a)	Estimated Allowed Charges(a)	Percent Urban (Charges)	Percent Rural (Charges)	Percent Unknown (Charges)
Alabama	265,300	\$793,084	65.4%	34.5%	0.1%
Alaska	2,500	\$7,500	48.0%	52.0%	0.0%
Arizona	232,900	\$697,480	81.1%	18.8%	0.0%
Arkansas	180,800	\$564,800	25.2%	74.8%	0.1%
California (northern)	392,700	\$1,165,799	89.4%	10.6%	0.0%
California (southern)	652,600	\$1,957,800	96.4%	3.3%	0.4%
Colorado	113,000	\$340,200	82.1%	17.8%	0.1%
Connecticut	120,400	\$361,700	93.0%	7.0%	0.0%
Delaware	10,300	\$30,900	74.8%	25.2%	0.0%
District of Columbia	105,100	\$315,300	83.3%	1.6%	15.0%
Florida	1,372,500	\$4,118,250	93.0%	6.9%	0.1%
Georgia	316,400	\$949,300	55.4%	44.6%	0.0%
Hawaii	15,300	\$45,888	83.7%	16.3%	0.0%
Idaho	73,100	\$219,029	17.3%	82.5%	0.3%
Illinois	501,300	\$1,506,998	77.1%	22.9%	0.0%
Indiana	297,400	\$892,039	67.0%	33.0%	0.0%
Iowa	284,800	\$855,888	34.5%	65.3%	0.1%
Kansas	225,700	\$677,450	31.9%	68.1%	0.0%
Kansas City	122,400	\$385,404	79.4%	20.6%	0.0%
Kentucky	179,200	\$537,594	49.0%	51.0%	0.0%
Louisiana	245,100	\$754,644	60.6%	39.3%	0.0%
Maine	73,800	\$221,960	65.4%	34.6%	0.0%
Maryland	73,900	\$222,400	65.1%	9.0%	25.9%
Massachusetts	233,500	\$702,200	89.1%	10.9%	0.0%
Michigan	577,000	\$1,128,006	79.2%	20.8%	0.0%
Minnesota (rural)	149,500	\$448,232	72.2%	27.8%	0.0%
Minnesota (Minneapolis)	96,600	\$1,503,683	24.7%	75.3%	0.0%
Mississippi	251,500	\$754,830	20.1%	79.9%	0.0%
Missouri	269,200	\$807,021	44.3%	47.7%	8.0%
Montana	43,300	\$129,900	40.6%	59.4%	0.0%
Nebraska	181,600	\$545,288	32.3%	67.7%	0.0%
Nevada	35,800	\$107,400	89.4%	7.0%	3.6%
New Hampshire/Vermont	45,900	\$137,900	40.5%	59.5%	0.0%
New Jersey	285,500	\$856,274	99.9%	0.1%	0.0%
New Mexico	28,000	\$84,000	47.1%	48.9%	3.9%
New York (NYC area)	546,900	\$1,640,647	95.8%	4.2%	0.0%
New York (Queens)	56,500	\$169,616	100.0%	0.0%	0.0%
New York (upstate)	200,000	\$597,773	78.7%	21.2%	0.2%
North and South Dakota	164,000	\$491,247	18.9%	80.9%	0.1%
North Carolina	439,600	\$1,318,700	46.2%	53.8%	0.0%
Ohio	556,500	\$1,668,150	82.2%	17.8%	0.0%
Oklahoma	270,300	\$810,951	38.0%	61.7%	0.3%
Oregon	173,800	\$521,288	65.8%	34.2%	0.0%
Pennsylvania	477,000	\$1,430,765	84.4%	15.6%	0.0%
South Carolina	183,700	\$551,068	59.4%	40.1%	0.5%
Tennessee	366,400	\$1,098,900	62.9%	36.5%	0.6%
Texas	974,300	\$2,922,028	65.5%	34.3%	0.1%
Utah	44,900	\$134,868	72.3%	27.7%	0.0%
Washington (state)	342,000	\$1,033,044	76.8%	23.1%	0.2%
West Virginia	122,700	\$368,400	34.3%	65.7%	0.0%
Wisconsin	432,200	\$1,309,906	62.7%	37.3%	0.0%
Wyoming	10,900	\$32,700	37.6%	54.1%	8.3%

(a) Estimates are derived by multiplying claims data from 1% BMAD
BMAD Beneficiary File by 100.

Source: 1% BMAD Beneficiary File

TABLE 3-8

CLAIMS FOR COLLECTION AND HANDLING OF BLOOD SPECIMENS ASSOCIATED WITH IN-OFFICE BLOOD TESTS, BY URBAN/RURAL AREAS WITHIN CARRIER

Carrier	Estimated Number of Claims(a)	Estimated Allowed Charges(a)	Percent Urban (Charges)	Percent Rural (Charges)	Percent Unknown (Charges)	Ratio of Rural Collection/ Handling Assoc. with Tests to All Rural Collection/ Handling (Charges)
Alabama	265,300	\$793,084	65.4%	34.5%	0.1%	1.0
Alaska	2,500	\$7,500	48.0%	52.0%	0.0%	0.7
Arizona	232,900	\$697,480	81.1%	18.8%	0.0%	0.9
Arkansas	180,800	\$564,600	25.2%	74.8%	0.1%	1.1
California (northern)	392,700	\$1,165,799	89.4%	10.6%	0.0%	1.0
California (southern)	652,600	\$1,957,800	96.4%	3.3%	0.4%	1.1
Colorado	113,000	\$340,200	82.1%	17.8%	0.1%	1.0
Connecticut	120,400	\$361,700	93.0%	7.0%	0.0%	1.3
Delaware	10,300	\$30,900	74.8%	25.2%	0.0%	0.7
District of Columbia	105,100	\$315,300	83.3%	1.6%	15.0%	1.1
Florida	1,372,500	\$4,118,250	93.0%	6.9%	0.1%	0.9
Georgia	316,400	\$949,300	55.4%	44.6%	0.0%	1.1
Hawaii	15,300	\$45,888	83.7%	16.3%	0.0%	0.8
Idaho	73,100	\$219,029	17.3%	82.5%	0.3%	1.0
Illinois	501,300	\$1,506,998	77.1%	22.9%	0.0%	1.6
Indiana	297,400	\$892,039	67.0%	33.0%	0.0%	1.9
Iowa	284,800	\$855,886	34.5%	65.3%	0.1%	1.0
Kansas	225,700	\$677,450	31.9%	68.1%	0.0%	0.3
Kansas City	122,400	\$365,404	79.4%	20.6%	0.0%	2.6
Kentucky	179,200	\$537,594	49.0%	51.0%	0.0%	0.8
Louisiana	245,100	\$754,644	60.6%	39.3%	0.0%	1.0
Maine	73,800	\$221,960	65.4%	34.6%	0.0%	0.3
Maryland	73,900	\$222,400	65.1%	9.0%	25.9%	0.9
Massachusetts	233,500	\$702,200	89.1%	10.9%	0.0%	2.2
Michigan	577,000	\$1,128,008	79.2%	20.8%	0.0%	4.2
Minnesota (rural)	96,600	\$1,503,683	24.7%	75.3%	0.0%	1.1
Minnesota (Minneapolis)	149,500	\$448,232	72.2%	27.8%	0.0%	1.1
Mississippi	251,500	\$754,830	20.1%	79.9%	0.0%	0.6
Missouri	269,200	\$807,021	44.3%	47.7%	8.0%	1.4
Montana	43,300	\$129,900	40.6%	59.4%	0.0%	1.0
Nebraska	181,800	\$545,288	32.3%	67.7%	0.0%	0.1
Nevada	35,800	\$107,400	89.4%	7.0%	3.6%	8.4
New Hampshire/Vermont	45,900	\$137,900	40.5%	59.5%	0.0%	0.0
New Jersey	285,500	\$856,274	99.9%	0.1%	0.0%	212.6
New Mexico	28,000	\$84,000	47.1%	48.9%	3.9%	0.1
New York (NYC area)	546,900	\$1,640,647	95.8%	4.2%	0.0%	0.0
New York (Queens)	56,500	\$169,616	100.0%	0.0%	0.0%	0.0
New York (upstate)	200,000	\$597,773	78.7%	21.2%	0.2%	3.8
North and South Dakota	164,000	\$491,247	18.9%	80.9%	0.1%	0.7
North Carolina	439,600	\$1,318,700	46.2%	53.8%	0.0%	0.3
Ohio	556,500	\$1,668,150	82.2%	17.8%	0.0%	3.5
Oklahoma	270,300	\$810,951	38.0%	61.7%	0.3%	0.6
Oregon	173,800	\$521,288	65.8%	34.2%	0.0%	0.6
Pennsylvania	477,000	\$1,430,785	84.4%	15.6%	0.0%	1.4
South Carolina	183,700	\$551,068	59.4%	40.1%	0.5%	1.0
Tennessee	366,400	\$1,098,900	62.9%	36.5%	0.6%	1.0
Texas	974,300	\$2,922,028	65.5%	34.3%	0.1%	1.1
Utah	44,900	\$134,868	72.3%	27.7%	0.0%	1.0
Washington (state)	342,000	\$1,033,044	76.8%	23.1%	0.2%	1.0
West Virginia	122,700	\$368,400	34.3%	65.7%	0.0%	1.0
Wisconsin	432,200	\$1,309,908	62.7%	37.3%	0.0%	1.0
Wyoming	10,900	\$32,700	37.6%	54.1%	8.3%	0.8
Totals	13,415,600	\$40,905,990	68.4%	31.0%	0.5%	1.0

(a) Estimates are derived by multiplying claims data from 1% BMAD
BMAD Beneficiary File by 100.

TABLE 3-9

DISTRIBUTION OF OFFICE VISITS, CONSULTS, AND CLAIMS FOR COLLECTION AND HANDLING OF BLOOD SPECIMENS, BY SPECIALTY

Specialty	Total Claims For Visits and Consults (a)	Allowed Charges for Visits and Consults (a)	Total Claims for Collection and Handling (a)	Allowed Charges for Collection and Handling (a)	Percent of Charges for Visits and Consults	Percent of Charges for Collection and Handling	Ratio of Charges for Handling vs. Visits, Consults
Cardiovascular Disease	6,291,200	\$219,884,293	1,140,600	\$3,434,104	5.9%	4.7%	1.6%
Dermatology	3,233,000	\$93,775,246	32,400	\$102,154	2.5%	0.1%	0.1%
Ear, Nose & Throat	3,029,800	\$92,682,011	10,100	\$30,526	2.5%	0.0%	0.0%
Family Practice	21,660,500	\$481,304,127	4,375,700	\$14,454,304	13.0%	19.9%	3.0%
Gastroenterology	1,649,000	\$63,261,413	282,700	\$861,562	1.7%	1.2%	1.4%
General Practice	14,430,400	\$328,052,322	2,483,100	\$6,876,888	8.8%	9.5%	2.1%
General Surgery	5,161,400	\$139,448,042	329,500	\$1,070,453	3.8%	1.5%	0.8%
Group Practice	7,735,000	\$217,106,932	1,727,800	\$7,561,991	5.9%	10.4%	3.5%
Internal Medicine	39,556,100	\$1,209,036,769	10,979,500	\$33,470,432	32.6%	46.1%	2.8%
Neurology	1,499,700	\$76,712,027	51,700	\$181,678	2.1%	0.3%	0.2%
Obstetrics-Gynecology	1,611,000	\$54,502,349	76,500	\$229,460	1.5%	0.3%	0.4%
Ophthalmology	5,208,000	\$157,360,817	27,200	\$83,626	4.2%	0.1%	0.1%
Orthopedic Surgery	4,382,900	\$139,948,438	16,000	\$48,774	3.8%	0.1%	0.0%
Podiatry	2,986,500	\$78,523,002	21,700	\$65,400	2.1%	0.1%	0.1%
Pulmonary Disease	1,646,500	\$58,132,918	250,900	\$761,752	1.6%	1.0%	1.3%
Urology	4,002,900	\$111,617,089	217,100	\$661,906	3.0%	0.9%	0.6%
All Others	5,713,500	\$185,795,057	884,900	\$2,698,455	5.0%	3.7%	1.5%
Totals	129,797,400	\$3,707,142,852	22,907,400	\$72,593,465	100.0%	100.0%	2.0%

(a) Estimated by multiplying claims data from 1% BMAD Beneficiary File by 100

Source: 1989 1% BMAD Beneficiary File

TABLE 3-10

COLLECTION AND HANDLING OF BLOOD SPECIMENS ASSOCIATED WITH VISITS AND CONSULTS, BY SPECIALTY

Specialty	Total Claims For Visits and Consults (a)	Allowed Charges for Visits and Consults (a)	Associated Claims for Collection/ Handling (a)	Allowed Charges for Collection/ Handling (a)	Collection/ Handling Charges as Pct. of Visits/Consults
Cardiovascular Disease	6,291,200	\$219,884,293	735,400	\$2,208,948	1.0%
Dermatology	3,233,000	\$93,775,246	17,100	\$51,636	0.1%
Ear, Nose & Throat	3,029,800	\$92,682,011	7,000	\$21,214	0.0%
Family Practice	21,660,500	\$481,304,127	3,051,200	\$9,608,339	2.0%
Gastroenterology	1,649,000	\$63,261,413	217,700	\$664,633	1.1%
General Practice	14,430,400	\$328,052,322	1,850,600	\$4,849,078	1.5%
General Surgery	5,161,400	\$139,448,042	209,300	\$631,318	0.5%
Group Practice	7,735,000	\$217,106,932	1,058,900	\$3,908,105	1.8%
Internal Medicine	39,556,100	\$1,209,036,769	8,125,600	\$23,960,459	2.0%
Neurology	1,499,700	\$76,712,027	32,000	\$96,079	0.1%
Obstetrics-Gynecology	1,611,000	\$54,502,349	58,800	\$176,196	0.3%
Ophthalmology	5,208,000	\$157,360,817	7,300	\$21,900	0.0%
Orthopedic Surgery	4,382,900	\$139,948,438	6,900	\$21,462	0.0%
Podiatry	2,986,500	\$78,523,002	9,500	\$28,800	0.0%
Pulmonary Disease	1,646,500	\$58,132,918	196,400	\$589,730	1.0%
Urology	4,002,900	\$111,617,089	159,900	\$481,645	0.4%
All Others	5,713,500	\$185,795,057	442,400	\$1,347,291	0.7%
Totals	129,797,400	\$3,707,142,852	16,186,000	\$48,666,833	1.3%

(a) Estimated by multiplying claims data from 1% BMAD Beneficiary File by 100

Source: 1989 1% BMAD Beneficiary File

TABLE 3-11

PERCENT OF CLAIMS FOR COLLECTION AND HANDLING OF BLOOD SPECIMENS
ASSOCIATED WITH OFFICE VISITS OR CONSULTS, BY SPECIALTY

Specialty	Total Claims for Collection and Handling (a)	Associated Claims for Collection/ Handling (a)	Percent Associated with Visits/Consults
Cardiovascular Disease	1,140,600	735,400	64.5%
Dermatology	32,400	17,100	52.8%
Ear, Nose & Throat	10,100	7,000	69.3%
Family Practice	4,375,700	3,051,200	69.7%
Gastroenterology	282,700	217,700	77.0%
General Practice	2,483,100	1,850,600	74.5%
General Surgery	329,500	209,300	63.5%
Group Practice	1,727,800	1,058,900	61.3%
Internal Medicine	10,979,500	8,125,600	74.0%
Neurology	51,700	32,000	61.9%
Obstetrics-Gynecology	76,500	58,800	76.9%
Ophthalmology	27,200	7,300	26.8%
Orthopedic Surgery	16,000	6,900	43.1%
Podiatry	21,700	9,500	43.8%
Pulmonary Disease	250,900	196,400	78.3%
Urology	217,100	159,900	73.7%
All Others	884,900	442,400	50.0%
Totals	22,907,400	16,186,000	70.7%

(a) Estimated by multiplying claims data from 1% BMAD Beneficiary File by 100

Source: 1989 1% BMAD Beneficiary File

TABLE 3-12

CLAIMS FOR COLLECTION AND HANDLING OF BLOOD SPECIMENS ASSOCIATED WITH OFFICE LABORATORY TESTS PERFORMED ON BLOOD SPECIMENS, BY SPECIALTY

<u>Specialty</u>	<u>Total No. of Claims for Collection/ Handling(a)</u>	<u>Total Allowed Charges for Collection/ Handling(a)</u>	<u>No. of Associated Claims for Collection/ Handling(a)</u>	<u>Allowed Charges for Collection/ Handling(a)</u>	<u>Pct. of Total Charges by Specialty</u>	<u>Ratio of Associated Claims to All Claims</u>
Cardiovascular Disease	1,140,600	\$3,434,104	574,700	\$1,729,050	4.2%	50.3%
Dermatology	32,400	\$102,154	3,300	\$9,900	0.0%	9.7%
Ear, Nose & Throat	10,100	\$30,526	5,700	\$17,112	0.0%	56.1%
Family Practice	4,375,700	\$14,454,304	2,373,200	\$7,321,494	17.9%	50.7%
Gastroenterology	282,700	\$861,562	129,300	\$398,170	1.0%	46.2%
General Practice	2,483,100	\$6,876,888	1,138,800	\$3,440,562	8.4%	50.0%
General Surgery	329,500	\$1,070,453	174,900	\$534,759	1.3%	50.0%
Group Practice	1,727,800	\$7,561,991	1,140,800	\$4,024,293	9.8%	53.2%
Internal Medicine	10,979,500	\$33,470,432	7,087,400	\$21,054,261	51.5%	62.9%
Neurology	51,700	\$181,678	27,900	\$86,398	0.2%	47.6%
Obstetrics-Gynecology	76,500	\$229,460	28,800	\$86,359	0.2%	37.6%
Ophthalmology	27,200	\$83,626	11,200	\$33,912	0.1%	40.6%
Orthopedic Surgery	16,000	\$48,774	11,400	\$34,224	0.1%	70.2%
Podiatry	21,700	\$65,400	2,400	\$7,200	0.0%	11.0%
Pulmonary Disease	250,900	\$761,752	130,500	\$392,770	1.0%	51.6%
Urology	217,100	\$661,906	43,300	\$131,501	0.3%	19.9%
All Others	884,900	\$2,698,455	532,300	\$1,604,930	3.9%	59.5%
Totals	22,907,400	\$72,593,465	13,415,900	\$40,906,895	100.0%	56.4%

(a) Estimated by multiplying claims data from 1% BMAD Beneficiary File by 100

Source: 1989 1 % BMAD Beneficiary File

TABLE 3-13

ESTIMATED COST SAVINGS FROM BUNDLING CLAIMS FOR COLLECTION AND HANDLING OF BLOOD SPECIMENS WITH OTHER OFFICE-BASED SERVICES

<u>Bundling Method</u>	<u>Estimated Savings (1989 data)</u>
1. Deny collection/handling claims associated with office-based blood tests	\$40.9 million
2. Deny collection/handling claims associated with office visits and consults	\$48.7 million
3. Deny collection/handling claims associated with office-based blood tests, office visits, and consults	\$60.8 million
4. Deny all collection/handling claims	\$72.8 million

Source: 1989 1 % BMAD Beneficiary File

APPENDIX A

APPENDIX A: CPT PROCEDURE CODES FOR LABORATORY TESTS USUALLY OR ALWAYS PERFORMED ON BLOOD SPECIMENS

PROCEDURE CODE	DESCRIPTION	FREQUENCY
LABORATORY TESTS		
80002	1-2 CLINICAL CHEM TESTS	3,272
80003	3 CLINICAL CHEMISTRY TESTS	2,629
80004	4 CLINICAL CHEMISTRY TESTS	1,667
80005	5 CLINICAL CHEMISTRY TESTS	684
80006	6 CLINICAL CHEMISTRY TESTS	749
80007	7 CLINICAL CHEMISTRY TESTS	705
80008	8 CLINICAL CHEMISTRY TESTS	451
80009	9 CLINICAL CHEMISTRY TESTS	255
80010	10 CLINICAL CHEMISTRY TESTS	294
80011	11 CLINICAL CHEMISTRY TESTS	280
80012	12 CLINICAL CHEMISTRY TESTS	2,709
80016	13-16 BLOOD/URINE TESTS	6,170
80018	17-18 BLOOD/URINE TESTS	2,610
80019	19 OR MORE BLOOD/URINE TESTS	5,417
80031	DRUG MONITORING, ONE DRUG	144
80032	DRUG MONITORING, TWO DRUGS	13
80033	DRUG MONITORING, THREE DRUGS	2
80034	DRUG MONITORING, FOUR DRUGS	2
80040	BLOOD ANTIBIOTIC LEVEL TEST	1
80042	ASSAY BLOOD, ANTIMICROBIAL	2
80050	GENERAL HEALTH SCREEN PANEL	2,054
80053	EXECUTIVE PROFILE	608
80055	OBSTETRIC PROFILE	2
80056	AMENORRHEA PANEL	3
80058	HEPATIC FUNCTION PANEL	2,945
80059	HEPATITIS PANEL	184
80060	HYPERTENSION PANEL	2,330
80061	LIPID PROFILE	7,211
80062	CARDIAC EVALUATION PANEL	2,472
80063	CARDIAC INJURY PANEL	63
80064	CARDIAC INJURY PANEL	91
80065	METABOLIC PANEL	885
80066	MALABSORPTION PANEL	9
80067	LUNG FUNCTION PANEL	6
80068	LUNG MATURITY PROFILE	1
80070	THYROID PANEL	1,283
80071	THYROID PANEL WITH TRH	37
80072	ARTHRITIS PANEL	304
80073	RENAL PANEL	3,339
80075	PARATHYROID PANEL	8
80080	PROSTATIC PANEL	27
80082	PANCREATIC PANEL	18
80085	MICROCYTIC ANEMIA PANEL	31
80086	MACROCYTIC ANEMIA PANEL	38
80088	TRANSITION PANEL	116
80089	MUSCLE PANEL	14
80090	ANTIBODY PANEL	7
80099	PANEL, NOT SPECIFIED	243

CHEMISTRY AND TOXICOLOGY

82000	ASSAY BLOOD ACETALDEHYDE	7
82040	ASSAY SERUM ALBUMIN	97
82055	ASSAY BLOOD ETHANOL	1
82060	ASSAY BLOOD ETHANOL	2
82088	RIA ASSAY, BLOOD ALDOSTERONE	25
82140	ASSAY OF BLOOD AMMONIA	30
82150	ASSAY OF SERUM AMYLASE	607
82180	ASSAY OF ASCORBIC ACID	2
82232	RIA ASSAY SERUM PROTEIN	23
82240	ASSAY BILE ACIDS IN BLOOD	8
82250	ASSAY BLOOD BILIRUBIN	188
82251	ASSAY BLOOD BILIRUBIN	21
82280	ASSAY BORIC ACID IN BLOOD	1
82290	ASSAY BROMIDES IN BLOOD	2
82310	ASSAY CALCIUM IN BLOOD	366
82315	ASSAY CALCIUM IN BLOOD	2
82325	ASSAY CALCIUM IN BLOOD	4
82330	ASSAY CALCIUM IN BLOOD	162
82372	ASSAY SERUM CARBAMAZEPINE	83
82380	ASSAY BLOOD CAROTENE	4
82415	ASSAY BLOOD CHLORAMPHENICOL	1
82435	ASSAY BLOOD CHLORIDES	173
82465	ASSAY SERUM CHOLESTEROL	8,819
82470	ASSAY SERUM CHOLESTEROL	64
82480	ASSAY SERUM CHOLINESTERASE	1
82525	ASSAY BLOOD COPPER	2
82529	ASSAY OF CORTISOL	11
82531	ASSAY PLASMA CORTISOL	1
82533	RIA ASSAY PLASMA CORTISOL	42
82540	ASSAY BLOOD CREATINE	269
82550	ASSAY CPK IN BLOOD	397
82552	ASSAY CPK IN BLOOD	51
82555	ASSAY CPK IN BLOOD	97
82565	ASSAY BLOOD CREATININE	2,441
82585	ASSAY BLOOD CRYOFIBRINOGEN	3
82595	ASSAY BLOOD CRYOGLOBULIN	27
82640	RIA FOR BLOOD DIGITOXIN	76
82643	RIA ASSAY FOR DIGOXIN	1,601
82720	ASSAY BLOOD FATTY ACID,ESTER	4
82725	ASSAY BLOOD FATTY ACIDS	3
82728	ASSAY FERRITIN	149
82730	ASSAY BLOOD FIBRINOGEN	3
82735	ASSAY BLOOD FLUORIDE	2
82745	BLOOD FOLIC ACID BIOASSAY	17
82746	BLOOD FOLIC ACID RIA	107
82756	FREE THYROXINE INDEX (T-7)	1,014
82759	RBC GALACTOKINASE ASSAY	1
82760	ASSAY BLOOD GALACTOSE	12
82938	SERUM GASTRIN TEST	1
82941	RIA ASSAY OF GASTRIN	11
82942	ASSAY SERUM GLOBULIN	10
82946	GLUCAGON TOLERANCE TEST	15
82947	ASSAY BODY FLUID, GLUCOSE	23,949
82951	GLUCOSE TOLERANCE TEST (GTT)	160
82952	GTT-ADDED SAMPLES	94
82953	GLUCOSE-TOLBUTAMIDE TEST	9
82955	ASSAY G6PD ENZYME	13
82960	TEST FOR G6PD ENZYME	16
82961	IV GLUCOSE TOLERANCE TEST	5

82965	ASSAY BLOOD GDH ENZYME	8
82977	ASSAY OF GGT ENZYME	697
83000	PITUITARY GONADOTROPIN ASSAY	8
83001	PITUITARY GONADOTROPIN RIA	24
83002	PITUITARY GONADOTROPINS RIA	24
83003	RIA ASSAY GROWTH HORMONE	2
83010	CHEM ASSAY HAPTOGLOBIN	17
83011	ELP ASSAY HAPTOGLOBIN	4
83020	ASSAY HEMOGLOBIN	172
83030	FETAL HEMOGLOBIN ASSAY	17
83036	GLYCOSYLATED HEMOGLOBIN TEST	1,799
83040	BLOOD METHEMOGLOBIN ASSAY	9
83045	BLOOD METHEMOGLOBIN TEST	3
83050	BLOOD METHEMOGLOBIN ASSAY	51
83051	ASSAY PLASMA HEMOGLOBIN	136
83052	SICKLE HEMOGLOBIN TEST	3
83053	ASSAY HEMOGLOBIN SOLUBILITY	7
83060	BLOOD SULFHEMOGLOBIN ASSAY	1
83068	HEMOGLOBIN STABILITY SCREEN	7
83485	UV-ASSAY BLOOD HBD ENZYME	4
83486	ASSAY BLOOD HBD ENZYME	6
83525	RIA ASSAY OF INSULIN	12
83540	ASSAY SERUM IRON	254
83545	AUTO-ASSAY SERUM IRON	139
83546	RADIO-ASSAY SERUM IRON	14
83550	SERUM IRON BINDING TEST	221
83555	SERUM IRON BINDING,AUTO-TEST	53
83565	SERUM RADIO-IRON BINDING	29
83570	UV-ASSAY BLOOD IDH ENZYME	1
83610	RIA ASSAY LDH ENZYME	6
83615	UV-ASSAY BLOOD LDH ENZYME	163
83620	ASSAY BLOOD LDH ENZYME	42
83624	BLOOD LDH ENZYME TEST	3
83625	ASSAY BLOOD LDH ENZYMES	13
83626	ASSAY BLOOD LDH ENZYMES	4
83628	ASSAY LIVER LDH ENZYME	2
83685	ASSAY FOR LIDOCAINE	1
83690	ASSAY BLOOD LIPASE	33
83700	ASSAY BLOOD LIPIDS	161
83705	ASSAY BLOOD LIPID GROUPS	335
83715	ASSAY BLOOD LIPOPROTEINS	219
83717	ASSAY BLOOD LIPOPROTEINS	48
83718	BLOOD LIPOPROTEIN ASSAY	6,194
83719	BLOOD LIPOPROTEIN ASSAY	267
83720	BLOOD LIPOPROTEIN ASSAY	4,383
83725	ASSAY BLOOD LITHIUM	40
83728	RIA ASSAY OF LSD	4
83730	SIA TEST	7
83735	ASSAY BLOOD MAGNESIUM	444
83750	ASSAY BLOOD MAGNESIUM	12
83930	ASSAY BLOOD OSMOLALITY	37
83970	RIA ASSAY OF PARATHORMONE	22
84045	ASSAY PHENYTOIN	314
84060	ASSAY BLOOD ACID PHOSPHATASE	235
84065	ASSAY PROSTATE PHOSPHATASE	219
84066	ASSAY PROSTATE PHOSPHATASE	119
84075	ASSAY ALKALINE PHOSPHATASE	492
84078	ASSAY ALKALINE PHOSPHATASE	1
84080	ASSAY ALKALINE PHOSPHATASES	17
84090	ASSAY BLOOD PHOSPHOLIPIDS	18
84100	ASSAY BLOOD PHOSPHORUS	77

84132	ASSAY BLOOD POTASSIUM	11,642
84142	ASSAY PROCAINAMIDE	19
84146	RIA ASSAY FOR PROLACTIN	29
84149	ASSAY PROPRANOLOL	1
84155	ASSAY SERUM PROTEIN	64
84160	ASSAY SERUM PROTEIN	17
84165	ASSAY SERUM PROTEINS	235
84170	ASSAY SERUM A/G RATIO	25
84201	ASSAY PROTIRELIN	3
84202	ASSAY RBC PROTOPORPHYRIN	6
84206	RIA ASSAY OF PROINSULIN	4
84220	ASSAY RBC PYRUVIC KINASE	2
84230	ASSAY QUINIDINE	83
84295	ASSAY BLOOD SODIUM	2,911
84403	RIA ASSAY BLOOD TESTOSTERONE	45
84420	ASSAY THEOPHYLLINE	1,706
84435	ASSAY THYROXINE (T-4)	1,961
84436	RIA ASSAY, TRUE THYROXINE	2,566
84439	RIA ASSAY, FREE THYROXINE	670
84442	THYROID ACTIVITY (TBG) ASSAY	227
84443	ASSAY THYROID STIM HORMONE	2,936
84450	UV-ASSAY TRANSAMINASE (SGOT)	905
84455	ASSAY TRANSAMINASE (SGOT)	205
84460	UV-ASSAY TRANSAMINASE (SGPT)	546
84465	ASSAY TRANSAMINASE (SGPT)	98
84476	ASSAY TRIFLUOPERAZINE	4
84478	ASSAY BLOOD TRIGLYCERIDES	4,011
84479	ASSAY TRIIODOTHYRONINE (T-3)	1,247
84480	RIA ASSAY, TT-3	656
84481	RIA ASSAY (FT-3)	83
84520	ASSAY BUN	2,834
84550	ASSAY BLOOD URIC ACID	1,303
84555	ASSAY URIC ACID	81

HEMATOLOGY

85000	BLEEDING TIME TEST	33
85002	BLEEDING TIME TEST	79
85005	BASOPHIL BLOOD CELL COUNT	52
85007	DIFFERENTIAL WBC COUNT	2,912
85009	DIFFERENTIAL WBC COUNT	431
85012	EOSINOPHIL BLOOD CELL COUNT	32
85014	HEMATOCRIT	3,860
85018	HEMOGLOBIN, COLORIMETRIC	4,859
85021	AUTOMATED HEMOGRAM	8,562
85022	AUTOMATED HEMOGRAM	13,531
85023	AUTOMATED HEMOGRAM	8,041
85024	AUTOMATED HEMOGRAM	10,460
85025	AUTOMATED HEMOGRAM	4,617
85027	AUTOMATED HEMOGRAM	5,463
85029	AUTOMATED HEMOGRAM	2,782
85030	AUTOMATED HEMOGRAM	1,524
85031	MANUAL HEMOGRAM, COMPLETE CBC	10,509
85041	RED BLOOD CELL (RBC) COUNT	178
85044	RETICULOCYTE COUNT	875
85048	WHITE BLOOD CELL (WBC) COUNT	2,302
85060	BLOOD SMEAR INTERPRETATION	461
85095	BONE MARROW ASPIRATION	41
85097	BONE MARROW INTERPRETATION	14
85100	BONE MARROW EXAMINATION	63

85101	ASPIRATE, STAIN BONE MARROW	9
85102	BONE MARROW BIOPSY	55
85103	BONE MARROW BIOPSY & EXAM	3
85105	BONE MARROW, INTERPRETATION	14
85109	BONE MARROW PREPARATION	4
85170	BLOOD CLOT RETRACTION SCREEN	7
85171	BLOOD CLOT RETRACTION ASSAY	1
85175	BLOOD CLOT LYSIS TIME	1
85210	BLOOD CLOT FACTOR II TEST	87
85220	BLOOD CLOT FACTOR V TEST	1
85230	BLOOD CLOT FACTOR VII TEST	1
85240	BLOOD CLOT FACTOR VIII TEST	3
85244	BLOOD CLOT FACTOR VIII TEST	2
85260	BLOOD CLOT FACTOR X TEST	1
85270	BLOOD CLOT FACTOR XI TEST	1
85291	BLOOD CLOT FACTOR XIII TEST	1
85300	ANTITHROMBIN III TEST	2
85301	ANTITHROMBIN III TEST	2
85310	ANTITHROMBOPLASTIN TEST	1
85341	PTT INHIBITION TEST	3
85345	COAGULATION TIME	14
85347	COAGULATION TIME	4
85360	EUGLOBULIN LYSIS	13
85362	FIBRIN DEGRADATION PRODUCTS	2
85363	FIBRIN DEGRADATION PRODUCTS	1
85368	FIBRIN DEGRADATION PRODUCTS	2
85371	FIBRINOGEN, SEMIQUANTITATIVE	6
85372	FIBRINOGEN, SEMIQUANTITATIVE	1
85376	FIBRINOGEN, THROMBIN	2
85377	FIBRINOGEN, THROMBIN TIME	2
85390	FIBRINOLYSINS SCREEN	1
85420	FIBRINOLYTIC PLASMINOGEN	6
85426	VON WILLEBRAND FACTOR ASSAY	2
85460	HEMOGLOBIN, FETAL	1
85530	HEPARIN-PROTAMINE TOLERANCE	1
85535	IRON STAIN, BLOOD CELLS	19
85540	WBC ALKALINE PHOSPHATASE	16
85544	LUPUS (LE) CELL PREP	38
85547	RBC MECHANICAL FRAGILITY	1
85548	RBC MORPHOLOGY	453
85560	WBC PEROXIDASE STAIN	3
85575	BLOOD PLATELET ADHESIVENESS	95
85576	BLOOD PLATELET AGGREGATION	12
85577	BLOOD PLATELET RETENTION	1
85580	BLOOD PLATELET COUNT	5,245
85585	BLOOD PLATELET ESTIMATION	343
85590	PLATELET PHASE MICROSCOPY	545
85595	ELECTRONIC PLATELET COUNT	3,966
85610	PROTHROMBIN TIME	10,183
85612	VIPER VENOM PROTHROMBIN TIME	10
85614	PROTHROMBIN TIME, TWO-STAGE	2
85615	PROTHROMBIN UTILIZATION TEST	27
85618	PROTHROMBIN-PROCONVERTIN	14
85630	RED BLOOD CELL SIZE	2
85635	REPTILASE TEST	2
85650	RBC SEDIMENTATION RATE	7,670
85651	RBC SEDIMENTATION RATE	8,220
85660	RBC SICKLE CELL TEST	3
85665	STREPTOKINASE TITER	5
85670	THROMBIN TIME; PLASMA	22
85675	THROMBIN TIME; TITER	2

85700	THROMBOPLASTIN GENERATION	1
85710	THROMBOPLASTIN GENERATION	1
85730	THROMBOPLASTIN TIME, PARTIAL	623
85732	THROMBOPLASTIN TIME, PARTIAL	12
85810	BLOOD VISCOSITY EXAMINATION	7
85820	SERUM VISCOSITY EXAMINATION	1
85999	HEMATOLOGY PROCEDURE	116

IMMUNOLOGY

86000	AGGLUTININS; FEBRILE	3
86002	AGGLUTININS; PANEL	2
86006	ANTIBODY, QUALITATIVE, FIRST	171
86007	ANTIBODY, QUAL., EACH ADDED	18
86008	ANTIBODY, QUANT., FIRST	136
86009	ANTIBODY, QUANT., EACH ADDED	5
86011	LEUKOCYTE ANTIBODY DETECTION	1
86012	COLD AUTOANTIBODY ABSORPTION	5
86013	COLD AUTOANTIBODY ABSORPTION	3
86014	PLATELET AGGLUTININS	3
86016	RBC ANTIBODY SCREEN	9
86017	RBC ANTIBODY SCREEN WITH ABO+RD(D) TYPIN	17
86021	WBC ANTIBODY IDENTIFICATION	1
86024	RBC ANTIBODY IDENTIFICATION	2
86031	ANTIHUMAN GLOBULIN TEST	24
86032	ANTIHUMAN GLOBULIN TEST	7
86033	ANTIHUMAN GLOBULIN TEST	1
86038	ANTINUCLEAR ANTIBODIES, RIA	83
86060	ANTISTREPTOLYSIN O TITER	61
86063	ANTISTREPTOLYSIN O SCREEN	8
86064	ANTITRYPSIN, ALPHA 1, RIA	3
86066	ANTITRYPSIN PI TYPING	1
86067	ANTITRYPSIN, ALPHA-1, TEST	3
86068	BLOOD COMPATIBILITY TEST, FIRST UNIT	5
86069	BLOOD COMPATIBILITY TEST, EACH ADD. UNIT	4
86080	BLOOD TYPING, ABO ONLY	4
86082	BLOOD TYPING, ABO & RHO(D)	19
86095	BLOOD TYPING, OTHER ANTIGENS	1
86100	BLOOD TYPING, RHO(D) ONLY	4
86105	BLOOD TYPING, RH GENOTYPING	1
86120	BLOOD TYPING, SPECIAL (KELL, DUFFY)	1
86128	COLLECT, STORAGE PT OWN BLOOD	2
86130	COLLECT, PROCESS PT OWN BLOOD	1
86140	C-REACTIVE PROTEIN	257
86149	CARCINOEMBRYONIC ANTIGEN, GEL	176
86151	CEA ASSAY, RIA OR EIA	627
86158	COMPLEMENT; C'1 ESTERASE	1
86162	COMPLEMENT; TOTAL (CH 50)	10
86163	COMPLEMENT; C'3 ESTERASE	25
86164	COMPLEMENT; C'4 ESTERASE	15
86171	COMPLEMENT FIXATION, EACH	15
86215	DEOXYRIBONUCLEASE, ANTIBODY	1
86225	DNA ANTIBODY	47
86235	NUCLEAR ANTIGEN ANTIBODY	36
86244	ASSAY ALPHA-1 FETOPROTEIN	1
86255	FLUORESCENT ANTIBODY; SCREEN	166
86256	FLUORESCENT ANTIBODY; TITER	194
86280	HEMAGGLUTINATION INHIBITION	7
86281	ACID HEMOLYSINS, HAM TEST	1
86282	HEMOLYSINS AND AGGLUTININS	15

86283	HEMOLYSINS AND AGGLUTININS	1
86287	HEPATITIS HAA, RIA, OR EIA	26
86289	HEPATITIS BC ANTIBODY TEST	5
86290	HEPATITIS BC ANTIBODY TEST	1
86291	HEPATITIS BS ANTIBODY TEST	24
86296	HEPATITIS A ANTIBODY TEST	5
86298	HEPATITIS A ANTIBODY TEST	1
86299	HEPATITIS A ANTIBODY TEST	1
86300	HETEROPHILE ANTIBODY SCREEN	49
86305	HETEROPHILE ANTIBODY TITER	1
86310	HETEROPHILE ANTIBODIES	2
86312	HIV ANTIBODY DETECTION	4
86316	IMMUNOASSAY, TUMOR ANTIGEN	272
86317	IMMUNOASSAY, INFECTIOUS AGENT	118
86318	ASSAY, CHEMICAL AGENT	13
86319	IMMUNOASSAY FOR DRUGS	60
86320	SERUM IMMUNOELECTROPHORESIS	28
86325	OTHER IMMUNOELECTROPHORESIS	2
86329	IMMUNODIFFUSION, EACH	126
86331	IMMUNODIFFUSION OUCHTERLONY	18
86332	ASSAY, C1Q PRECIPITIN	2
86334	IMMUNOFIXATION PROCEDURE	1
86340	INTRINSIC FACTOR ANTIBODY	1
86353	LYMPHOCYTE TRANSFORMATION	2
86357	LYMPHOCYTES, T&B DISTINCTION	1
86358	LYMPHOCYTES, B-CELL STUDY	1
86376	MICROSOMAL ANTIBODY, RIA	3
86377	MICROSOMAL ANTIBODY, THYROID	17
86403	RAPID TEST, INFECTIOUS AGENT	86
86410	PRETREATMENT RBCS; DRUGS	1
86421	RADIOALLERGOSORBENT TESTS	15
86422	RADIOALLERGOSORBENT TESTS	61
86423	RADIOIMMUNOSORBENT TEST IGE	47
86430	RHEUMATOID FACTOR TEST	936
86455	REDUCED ALLERGY SKIN TEST	3
86490	COCCIDIOIDOMYCOSIS SKIN TEST	32
86510	HISTOPLASMOSIS SKIN TEST	10
86540	MUMPS SKIN TEST	7
86580	TB INTRADERMAL TEST	146
86585	TB TINE TEST	161
86590	STREPTOKINASE, ANTIBODY	4
86592	BLOOD SEROLOGY, QUALITATIVE	303
86593	BLOOD SEROLOGY, QUANTITATIVE	2
86594	THYROID AUTOANTIBODIES	4
86650	TREPONEMA ANTIBODIES, FTA-ABS	5
86662	TREPONEMA PALLIDUM TEST	1
86685	ANTI-ACLR ANTIBODY	1
86800	THYROGLOBULIN ANTIBODY, RIA	5
86812	HLA TYPING, A, B, OR C	2
86999	IMMUNOLOGY PROCEDURE	21

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